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THE ROSE

I saw a Rose-bud ope this morn—I swear The blushing morning opened not more fair. COWLEY.



THE ROSE

A TREATISE

ON THE CULTIVATION, HISTORY, FAMILY CHARACTER-ISTICS, ETC., OF THE VARIOUS GROUPS OF ROSES, WITH ACCURATE DESCRIPTIONS OF THE VARIETIES NOW GEN-ERALLY GROWN

BY

H. B. ELLWANGER

WITH AN INTRODUCTION BY

GEORGE H. ELLWANGER

REVISED EDITION

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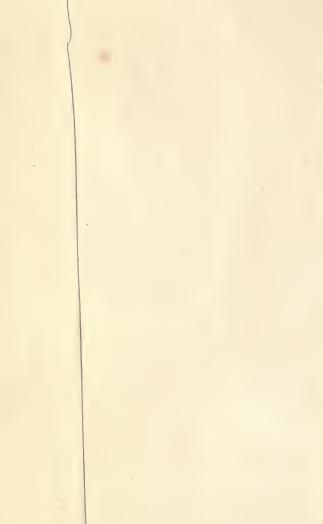
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I DEDICATE THIS BOOK TO MY FATHI, GEORGE ELLWANGER,

WHO HAS DONE SO MUCH TO IMPROVE HORTICUURAL
TASTE, AND INCULCATE A LOVE FOR THE BEAIFUL. HE HAS EVER TAUGHT, AND PROVEC
BY HIS LIFE, THAT MUCH OF THE
PUREST HAPPINESS IS FOUND
IN ACTIVE EMPLOYMENT
IN THE GARDEN.



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INTRODUCTION TO REVISED EDITION.



O comprehensively and intelligently has the theme been treated in the following monograph by one who was eminently qualified to

render it justice, that little remains to be said of the Rose in general. But during the past decade since "The Rose" was written by the late Henry B. Ellwanger, a host of new varieties have been produced and disseminated in the United States and in Europe. Those which have proven themselves most worthy to be retained have been included with their descriptions in the subjoined catalogue, the additional varieties being indicated by an asterisk. Additional works on the subject, and magazines and periodicals relating to it, have also been carried out to date.

A review from the *Century Magazine*, entitled "Old and New Roses," which appeared the year following the publication of this volume, and but a month previous to the au-

thor's death, has also been included, through the courtesy of the editors of that periodical. This essay, dealing as it does with numerous vital points connected with the development of the Rose, will be found most comprehensive and instructive, not only by the general reader, but by the skilled rosarian as well. Apart from these additions, the original text of the volume has been left as it first appeared.

With the increasing love for flowers, year by year rose-culture has steadily advanced in this country where, in its extended and varied area, the climatic requirements of this flower are scarcely excelled, while its intelligent cultivation under glass is elsewhere unsurpassed. Indeed, cut-flowers of most kinds are nowhere grown to greater perfection, and nowhere are more expense and pains bestowed in their development than by the florists in the metropolis and the larger cities of America. For flowers are no longer considered a mere luxury to be enjoyed by the wealthy, but have come to be regarded as a necessity to the well-being of even the modest home. The sentiment expressed by Jesse, "the passion for flowers is one of the most enduring and permanent of all enjoyments," has not changed, but has rather been heightened a hundred-fold in

these our modern days, in the same manner that an increased love for external Nature has become a marked characteristic of the age.

We are perhaps no nearer now than when the present volume was written in being able to decide upon the loveliest species and variety of the Rose. Moreover, the best rose under glass is not the best rose grown out of doors; while, in any event, to pronounce upon color might be at the sacrifice of form and fragrance, in numerous cases—

The rose looks fair, but fairer we it deem For that sweet odor that doth in it live.

Even were a few kinds singled out from the multitude for a general estimate, each of which possessed exceptional claims for recognition, the florist would decide upon one, the average person upon another; just as one might declare the Rose, another the violet, lily, or primrose the sweetest flower. To be restricted to any one form or color were irksome, withal, even in the case of individual species—

Earth hath no princelier flowers Than roses white and roses red, But they must still be minglèd.

The Rose is no exception to the charm of variety. Yet many of the fine old kinds are

comparatively neglected, if not entirely lost, jostled and thrust aside by the increasing horde of newer aspirants.

How many a country home owes its outward charm not only to its coronal of lilacs, honeysuckles, and snow-balls, its pomp of Pæonias, roses of Sharon and trumpet-vine, but to its climbing roses most of all-the blush-colored Baltimore Belle and rose-red Queen of the Prairies which festoon its pillars and entwine its arbors. Can any new variety exhale a sweeter perfume than the roses of our childhood-the old white Damask, pink Cabbage, and common Moss whose scented petals perchance remain fragrant still in the haunting essence of the rose-jar? Even the pink clusters of the rambling Michigan rose, and the spicy foliage of the Sweetbriar bring up an old garden with its pageant of daffodils, sweet Williams, snow-pinks, and Madonna lilies; its troops of columbines, larkspurs, bearded Irids, and bachelor-buttons; its blaze of hollyhocks, tiger-lilies, dahlias, and sunflowers. The first June rose! emblem of summer, symbol of sweetness, hue of beauty-with each succeeding year it blossoms fresh and beautiful as when Sappho crowned it with praise, and the nightingale wooed it in the gardens of Naishapûr.

Fortunately, the Rose is not confined to summer, though the class known as "summer" roses is indeed fleeting. But many of the hybrid-remontants, which include a large number of the loveliest and most fragrant kinds, disburse a second autumnal bloom; while in the open air and under glass combined, the Rose in some of its multifarious forms may be said to bloom the year round. Essentially it is the flower of the year, as well as the flower of the poets.

Not every one can afford a greenhouse in which to grow flowers during winter; very many, on the other hand, may enjoy their culture in the open air. No garden, it goes without saying, however beautiful and however rich its assortment of hardy shrubs and flowers, is complete without its June rosary. Like the majority of flowers and most things that are worth the having, the Rose, as the guerdon of its beauty, demands attention and loving care. Left to itself, enemies and scourges innumerable, from the first opening leaf to the last withered petal, come to prey upon it; not only marring its beauty but impairing its vitality. The rose-chafer, greenfly, leaf-roller, and rose-slug, to say nothing of mildew and the red-spider, are still as abundant as ever and require the same vigorous treatment of whale-oil soap, quassia, tobacco, hellebore, sulphur, and Paris green. A huge syringe, intended to be attached to the garden hose, and charged with any of these insect dynamos, according to the will of the operator, is a recent invention that will be welcomed by all rose-growers. Armed with this, it is claimed that death may be meted out by wholesale to the insect scourges, if the remedy be persistently applied. For in rose pests, one brood of insects is far from making a summer, and unremitting warfare is the price of abundant bloom and vigorous foliage.

As producers of new roses, the French continue in the lead, though an extremely large proportion of recent French varieties are mediocre or useless for general cultivation, or resemble so closely other well-known sorts as to be of no increased value in themselves. The incentive to produce new kinds, it should be remembered, is especially great in France, where twenty-five francs apiece is demanded for a novelty which may be good, bad, or indifferent, but whose description is invariably couleur de rose. Not that in the majority of cases they are sent out with the deliberate design to deceive—the Rose owes too much to Gallic intelligence, enthusiasm, and pains for

a charge of this nature to be made. But to the raiser, a new variety, fostered by his care and travail, naturally possesses enhanced attractions which may not be equally perceptible to the public; while new things are always apt to be more attractive at first sight than upon closer familiarity.

The English, who come next as producers of new roses, continue to send out some excellent novelties; and, with our own growers, exercise better care and more reliability in selecting than the French. America has contributed largely those kinds suitable for forcing under glass; and of American roses produced of recent years, it may be said they are nearly all valuable as proved by general cultivation.

Among new roses there has been nothing better produced in their respective classes than Baroness Rothschild and Mme. Gabriel Luizet in pink, La France in silvery rose, Mabel Morrison in white, Maréchal Niel in yellow, Catherine Mermet in delicate blush, Gloire de Dijon in rose-salmon, Marie Rady in fragrant and vivid vermilion, and General Jacqueminot in its brilliant scented crimson bud. Other new varieties have been added, to be sure, possessing especial merits. Of distinct sorts recently introduced may be par-

ticularly instanced: Teas: Mme. Hoste (Guillot, 1887), Mme. de Watteville (Guillot-fils, 1884), Mme. Pierre Guillot (Guillot, 1888), Papa Gontier (Nabonnand, 1883), Queen (Dingee & Conard Co., 1890), Climbing Niphetos (Keynes & Co., 1889), Climbing Perle des Jardins (J. Henderson, 1890). Hybrid Remontants: American Beauty (Hon. G. Bancroft, 1885), Earl of Dufferin (A. Dickson & Sons, 1887), Gloire de Margottin (Margottin, 1887), Lady Helen Stuart (A. Dickson & Sons, 1887). Mrs. John Laing (Bennett, 1887). Hybrid Rugosa: Mme. G. Bruant (Bruant, 1888). Bourbon: Mrs. Degraw (Burgess, 1887). Hybrid Tea: Meteor (Bennett, 1887). Polyantha: Clothilde Soupert (Soupert & Notting, 1890).

Of the numerous varieties produced since the present volume was written, few possess greater claims to recognition than the rose raised by the author and named by him after the distinguished pomologist, Marshall P. Wilder—one of the most fragrant, beautiful, and free-flowering of the hybrid-remontant class, and equalled by few roses as an autumnal bloomer. By many, American Beauty, supposed to be a cross from Mme. Victor Verdier and a Tea of unknown origin, is regarded as the finest of roses. In its class it is certainly unrivalled, with its immense fra-

grant blossoms, beautiful violet-red color, long stems, and luxuriant foliage. But it is essentially a rose for growing under glass, and cannot take the place of numerous old-time favorites as an out-of-door flower. Of comparatively recent introduction, Papa Gontier, in like manner, is greatly prized by florists for winter forcing, though to the amateur it scarcely takes the place of its deliciously-scented rosy rival, Bon Silène.

The improvements in the Rose may be best understood on comparing the monographs and catalogues of the present day with the lists of a half-century ago, and more especially with the lists as given by the old garden-masters like Gerarde, by whom it is extolled as "deserving the chiefest and most principall place among all floures whatsoever." How would Herrick and Waller have hymned its praises could they have beheld and savored the roses of to-day! For what improvements have not been made in the Queen of Flowers since the Elizabethan poets sang, "Go, lovely rose," and "Gather ye rosebuds while ye may!"

So many varieties now exist, however, that growers should exercise redoubled care in sending out anything as a novelty which does not possess intrinsic merits of its own. It may still be reiterated that among the thousands of varieties included in the genus *Rosa*, there exist far too many similar colors, and, equally, too many varieties whose color fades with the first warm sun, though many of the latter class prove more satisfactory when grown in a moist, cool climate. There might be an abundant weeding of varieties possessing a purplish-magenta shade, to the decided advantage of both growers and gardens. Too little attention also is paid in the raising of new varieties and in deciding the merits of exhibition roses, both here and abroad, to one of the most precious virtues of the Rose—fragrance—

The very fairest flower, they say, that blows, Such scent she hath.

A blue rose has not yet been produced. But it is not improbable that in the evolution of this favored flower, a variety with a pronounced bluish cast, at least, will some day smile upon its sisterhood, the result of the skill of the hybridizer, or the work perchance of the wandering bee. The most recent experiments of the hybridizer, in this case Lord Penzance, is a cross known as hybrid sweetbriars, the fragrance of the leaves of the par-

ent species being transmitted to the hybrid. Of these seedling sweet-briars, the result of various crosses, those crossed with hybrid perpetuals or remontants, hybrid Chinas, and hybrid Bourbons, have proved to be free autumnal bloomers with highly-scented flowers in clusters, a scent quite independent of that of the foliage. These flowers, to which an award of merit was accorded by the Royal Horticultural Society the past season, range over many beautiful shades of color, and although they have not shown great tendency to become double, two rows of petals being the maximum, the idea of achieving doubleness has not been given up.

As to the question of budded roses versus those grown on their own roots, there still exists a difference of opinion. In the case of certain kinds desirable in themselves, but not over-robust in habit, the budded rose, i.e., the variety budded on Manetti stock, endures better the heat of summer, produces more abundant bloom, and forms a more vigorous plant. Of roses for forcing in this country, the following may be mentioned as representative kinds, although in respect to choice of varieties, florists differ somewhat, in different localities; while even in the same locality some succeed admirably with certain kinds,

where others fail. A large proportion of the following are grown by nearly all leading florists throughout the country: Teas: Bride, Bon Silène, Catherine Mermet, Mme. Cusin, Mme. Hoste, Mme. de Watteville, Niphetos, Papa Gontier, Perle des Jardins, Sunset. Hybrid Teas: Duchess of Albany, La France, Meteor, Souvenir de Wooton. Hybrid China: Magna Charta. Hybrid Remontant: American Beauty, Anne de Diesbach, Baroness Rothschild, General Jacqueminot, Mabel Morrison, Mme. Gabriel Luizet, Mrs. John Laing, Paul Neyron, Ulrich Brunner.

When well grown under glass, few roses equal Souvenir de la Malmaison for its delicate refined beauty, and the delicious attar-ofrose fragrance exhaled by its flesh-colored petals-a fragrance observable in a less degree in Caroline de Sansal and some other varieties. Maréchal Niel, in like manner, has no equal in its splendid yellow full-blown flower, and its highly Tea-scented perfume; but it is unfortunately limited to a single lode of gold during the season. With regard to odors, great variety exists among the different kinds-some recalling a luscious fruit in their particular fragrance, others exhaling a spicy aroma, and others still comparable to nothing else but the pure uncloying odor of the Rose itself.

As for out-of-door roses, who may state the favorites among so many of the fair? Let each one decide their merits for himself; and, revelling in their wealth of beauty as it unfolds with each recurring blossom-tide, repeat with Omar:

Look to the blowing Rose about us—"Lo, Laughing," she says, "into the world I blow, At once the silken tassel of my Purse Tear, and its Treasure on the Garden throw."

GEORGE H. ELLWANGER.

ROCHESTER, Oct., 1892.



PREFACE.



HERE have been so many works on the Rose produced within the past twenty years, several of them being very valuable and interest-

ing, that a few words may not be out of place, to explain why it was thought desirable to add to the number. The most useful of these compilations are English works, but the differences of climate, etc., render necessary, for this country, a modification and change in the directions for culture. The same reasons will lead us to select a somewhat different list of varieties for general cultivation from what would be chosen by English Rosarians; besides all this, there is the expectant feeling which impels all authors, that the half has not been told, that in a subject like this uo compilation can ever be deemed per-

fect or final. New varieties, new classes and types, are being produced; by experience we learn that modifications of old-established principles are often necessary, and therefore fresh gleanings from the Rose garden will ever be acceptable and interesting when coming from observing and loving devotees of *La Reine*.

While, therefore, this book neither expects nor desires to supersede its predecessors, it asks admission to their fellowship, hoping that it contains enough that is distinctive and of merit to be considered companionable.

H. B. E.

MOUNT HOPE NURSERIES, ROCHESTER, 1882.

THE ROSE.

T.

CLASSIFICATION.



O two books, treating of the rose, exactly agree as to the different groups under which roses should be classed, and those who expect

some slight variance in this work from what has preceded it, in other compilations, will not be wrong in their conjectures.

There has been such an infinitude of crosses made between different groups, by means natural and artificial, that it would be rather remarkable to find two writers who would assign the same varieties throughout, to the same classes. So it is that, by the various conjectures and opinions of the different authors, much confusion and perplexity has been engendered. Some, in order that the character of a variety

may be known as nearly as possible, form many groups, classes, divisions, and subdivisions - enough to make the head of the reader swim in a sea of perplexity; others, in order to avoid a multiplicity of groups, narrow the classification to a few divisions, and, in so doing, bury completely the distinguishing characteristics of a variety. The former, besides arranging Hybrid Perpetuals into groups of Hybrid Noisettes and Hybrid Teas, further divide them into such groups as Hybrid Bourbons, Rose de Rosomane, Rose de Trianon, etc. The latter would place all these among Hybrid Perpetuals. I confess to leaning towards this latter class; but where we have distinguishing characteristics that are very marked, and other new varieties of the same or similar peculiarities are following, it seems desirable to provide a distinctive name and division for them. Thus, when Guillot introduced La France, it was appropriately placed among the Hybrid Perpetual Roses, although known to have originated from the seed of a Tea Rose. It would have been unwise to make a class for the exclusive benefit of this beauty, trusting that worthy companions might in the future be found for her; but now that we have Cannes La Coquette, Cheshunt Hybrid, Mme. Alexandre Bernaix, and those of Mr. Bennett's raising, it seems not only desirable but necessary to group them by themselves. The same is the case with the Hybrid Noisettes; both of these classes are being added to annually, and are now of very great importance. On the other hand, such groups as the Hybrid Bourbons are rapidly receding from prominence, and in order to simplify matters their disintegration should be made complete; the different varieties that are deemed worthy of being retained can be placed among the Hybrid Perpetuals or the Bourbons, according to their more prominent characteristics.

THE FAMILIES OF ROSES IN GENERAL CULTI-

PART I.—SUMMER ROSES.—Those which bloom but once during the season, in the months of June and July.

CLASS I.—CLIMBING OR SARMENTOUS ROSES.

The Ayrshire Rose (Rosa Arvensis Hybrida).—These roses, of English origin, are of slender, rapid growth, having five leaflets, often running fifteen or twenty feet in one season, and are of use in covering buildings, unsightly objects, etc. They are somewhat less hardy and less valuable than the hybrid climbers and prairie roses. They do not require rich soil, and should be pruned very little, or not at all. Bennett's Seedling, Queen of Ayrshires, Queen of Belgians, and Ruga, are the leading sorts.

The Banksia Rose (Rosa Banksiae) is a native of China, named in honor of Lady Banks by the botanist Robert Brown. It was

brought to England in 1807. The flowers, very small, resembling double cherry blossoms, are produced in clusters early in the season, and have, generally, a decided violet perfume; indeed I doubt whether many persons, if blindfolded, could by the odor distinguish them from violets. The wood is very smooth, slender, and of rapid growth. The leaflets are often but three in number, are long, dark, and lustrous. Not being hardy they can have no great value at the North, but in the Southern States they form a very desirable group. The best known sorts are Alba Grandiflora, Fortunei, White and Yellow. They should be sparingly pruned.

Boursault Rose (Rosa Alpina).—This is a distinct but worthless group, which receives its name from M. Boursault, a Parisian rose amateur. Most of the varieties are free from thorns and have long, flexible, reddish-colored shoots. Amadis, or Crimson Boursault, is the one most esteemed.

The Evergreen Rose (Rosa Sempervirens), with seven leaflets, has much in common with the Ayrshire, but is characterized by dark green foliage, which is retained till dislodged by heavy frosts; they are of the same hardiness as the Ayrshires and require the

same freedom from the pruning-knife; the knife should only be applied to cut out entirely shoots that require thinning. There have been several pretty varieties of this group sent out, but Félicité Perpétuelle is perhaps the best representative, and the only one we would commend for cultivation.

Hybrid Climbing Roses (Rosa Hybrida Scandens).—This class takes in those sorts for which it is difficult to find a group where they can be appropriately placed; it gathers in waifs and is a kind of orphan asylum, a place of refuge for the abandoned and unknown. No varieties in this group are of any great value; the old sorts, Mme. d'Arblay and the Garland, once the best known, are now almost forgotten. Those which are most grown are Fortune's Double Yellow, recently sent out under the name Beauty of Glazenwood, and La Saumonée.

The Many-Flowered Rose (Rosa Multiflora), five to seven leaflets, is a native of Japan, introduced into England by Thunberg in 1804. It flowers in clusters, and continues for some time in bloom; the flowers are double, small, and of no great beauty. The shoots have comparatively few thorns, which come in pairs. De la Grifferaie is in England considered valuable as a stock on which to work

the climbing teas and some other roses; we believe it may be good for this, it is not good for anything else. Grevillia, or Seven Sisters, generally sent out under the latter name, is propagated to considerable extent in this country, and is principally called for by tree peddlers, who make large sales of it, by means of exaggerated colored plates, accompanied by untruthful descriptions. It is as tender as the Tea-scented Noisettes, and is in every way inferior to them.

The Prairie Rose (Rosa Setigera or Rubifolia [erroneous]) is much the most valuable of all the non-remontant climbers. It is indigenous to the country, being found in Miehigan and many of the Western States. Seeds of the common variety were sown about 1836, by Messrs. Samuel and John Feast of Baltimore. The seedlings from this sowing were fertilized by surrounding flowers, from some of the best varieties of roses grown at the time, and from this lot came Baltimore Belle and Queen of the Prairies, the two best-known sorts. The foliage is rough, large, 5 to 7 leaflets, generally of a dark green color; for rapidity of growth they equal or excel the Ayrshires, and surpass all other climbers in hardiness. They bloom in large clusters late in the season,

when other summer roses are past and have gone their way, and succeed over a greater extent of territory than any other climbers. Although decidedly inferior in quality to the Tea-Noisettes and Climbing Teas, their hardiness and superior vigor of growth make them of great value where the more beautiful members of the sisterhood are too delicate in constitution to be made useful. When, then, it is desired to cover walls, trellises, old trees, unsightly buildings, etc., with roses, none will be found to do the work so efficiently as varieties of the Prairie Rose. It is very desirable that further development of this important class should be found; we should endeavor, by artificial fertilization, to produce hybrids, blending Hybrid Perpetual, Bourbon, and Noisette with the Prairies. This, with the more double varieties, is somewhat difficult, as I found in experiments made under glass last winter. I attempted to fertilize blooms of Baltimore Belle, Gem of the Prairies and Queen of the Prairies, by different varieties, such as General Jacqueminot, Safrano and Solfaterre, but the only seed I obtained was from one bloom of Gem of the Prairies fertilized by General Jacqueminot. The pistils of the Prairie Roses are glued together, as it were, and make fertilization very difficult: Gem of the Prairies, itself a hybrid, is the only one on which seed is often found in the open air, therefore we should probably be far more successful in making crosses by using some of the more single varieties.

The most desirable of the class are Anna Maria, Baltimore Belle, Gem of the Prairies (the only variety that is fragrant), Queen of the Prairies, and Triumphant. Baltimore Belle is the most beautiful, but seems to contain some Noisette blood, which makes it less hardy than the others; it is sufficiently robust, however, to withstand all ordinary winters. The Prairie Roses, like all climbers, should be sparingly pruned.

CLASS 2.

Austrian Brier (Rosa Lutea). - This is a native of the South of Europe, having single flowers, of a yellow or coppery-yellow color; leaflets 7 to 9 in number. The shoots are of a chocolate color, well fortified with spines. It is very hardy, and from its color and hardiness offers inducements to the hybridizers, but they will find some difficulty in getting it to seed. These roses must not be severely pruned or there will be an utter absence of flowers; it is only necessary to cut away

shoots that are decayed or need thinning and merely pinch the tops of shoots that are left. It is a small but interesting family, and gives us the only hardy yellow roses that are of value. There are three varieties worth growing, the Copper, Harrisonii, and Persian Yellow. The foliage of this class has a slight odor like the Sweet Brier.

The Damask Rose (Rosa Damascena) is found native about Damascus and various portions of Syria, from whence it was brought to Europe about 1573. It is in a large degree the founder of the Hybrid Perpetual Roses. From this class, and also from the Provence, most of the rose-water is distilled. The Damask have pale green leaves (5 to 7 leaflets), green shoots, with numerous spines, are of vigorous growth, and very hardy; the flowers are mostly flat, of light colors, and very fragrant. They need but little pruning.

Mme. Hardy and Mme. Zoutman are the only ones worth cultivating; they are both very valuable white roses, albeit the first-named is "green-eyed, like jealousy, envious, it may be, of the latter, who, though not of such a clear complexion, is free from ocular infirmities."

The French Rose (Rosa Gallica), in spite of its name, has not been traced to any country,

but is generally credited with being a native of Europe. It is very hardy, of compact growth, requiring close pruning.

The varieties in this class have very dark leaflets, 5 to 7 in number; though beautiful, they are superseded by various Hybrid Perpetuals of the same shade, and can no longer be recommended except for large collections. The best of them are Boule de Nanteuil, Oeillet Flamand, an odd, striped variety, and Triomphe de Jaussens.

The Hybrid China Rose (Rosa Indica Hybrida) has arisen from various crosses among the French, Provence and other summer kinds, with the China, Noisette, and Bourbon Roses. For a long time the varieties of this class were our most beautiful and cherished roses, but, like nearly all of the summer sorts, they are outshone and outlasted by various Remontants. In this connection it may be remarked that about one-fourth of the roses which are sent out as Hybrid Perpetuals should properly be placed among the Hybrid Chinas, for the flowers which they produce in autumn are the exception and not the rule. A Hybrid Perpetual may be described as a Hybrid China which blooms more than once during the season; if this classification were carried out, we should to-day be growing many more Hybrid Chinas and many less Hybrid Perpetuals. Raisers dislike to call a new variety Hybrid China, if by any stretch of the imagination, or from having seen a bloom during the autumn, they think people can be persuaded that they are getting a Remontant. To call a new variety a summer rose is to sound its death-knell, and no amount of adjectives in the superlative degree can resuscitate or afford it sufficient stimulus for more than a brief existence. People no longer buy summer roses, at least ninety-nine out of one hundred do not, but unless the description of the raiser particularly states to the contrary (that they are free autumnals) they are, all the same, pretty likely to get a number of them, and in the course of a few years will discover that many beautiful roses which they bought for Hybrid Perpetuals are simply summer roses which occasionally, or very rarely, grudgingly yield a few autumn flowers. In this book, therefore, many varieties will be found described as Hybrid Chinas, which are catalogued, by nurserymen, as Hybrid Perpetuals.

On account of the diverse parentage of the varieties in this group, coming from so many different classes, there is great dissimilarity in the appearance of the different sorts, but

most of them are rapid growers, with long, flexible shoots; smooth, luxuriant foliage; large, rather numerous, thorns; globular or cup-shaped flowers, which are freely produced in their season. Those of vigorous growth, and most of them are such, require but little pruning. Many of them make beautiful Pillar Roses and can be used as climbers in positions where extremely rapid growth is not required; in such places they make the best summer climbers that we have.

"It is time, I think, for some alterations in the nomenclature and classification of the rose. When summer roses-roses, that is, which bloom but once-were almost the only varieties grown, and when hybridizers found a splendid market for novelties in any quantities, new always, and distinct in name, the subdivisions yet remaining in some of our catalogues were interesting, no doubt, to our forefathers, and more intelligible, let us hope, than they are to us. Let us believe that it was patent to their shrewder sense why pink roses were called Albas, and roses whose hues were white and lemon were described as Damask. Let us suppose that they could distinguish at any distance the Gallica from the Provence Rose, and that when they heard the words Hybrid China,

instead of being reminded, as I am, of a cross between a Cochin and a Dorking fowl, they recognized an infinity of distinctive attributes which estrange that variety from the Hybrid Bourbon in the most palpable and objective form. But now that these summer roses are no longer paramount—rapidly disappearing, on the contrary, before the superior and more enduring beauty of those varieties which bloom in summer and autumn too; now that several divisions formerly recognized are gone from the catalogues, and others include but two or three able-bodied roses on their muster-roll-it would be advisable. I think, to ignore altogether these minor distinctions, and to classify as summer roses all those which bloom but once. Not without a painful sigh can we older rosarians witness the removal of our old landmarks-not without a loyal sorrow do we say farewell to friends who have brightened our lives with so much gladness; but we cannot long remember our losses, surrounded as we are by such abundant gains, and the tears of memory must pass away as quickly as the dew in summer."*

We think within a few years the suggestion of Canon Hole will be partially carried out by nurserymen in their catalogues, but it

^{*} S. Reynolds Hole-

would yet be well to keep in separate groups the Summer Climbers, the Austrian Brier, and Moss Roses. What remains of such old classes as the French, Provence, Damask, Hybrid Bourbon, etc., may well be grouped with the Hybrid Chinas.

The best of the old Hybrid China roses are Chênédollé, so called from a member of the Chamber of Deputies in France, a vivid red of large size; Coupe d'Hébé (who would not quaff nectar from this?); Mme. Plantier, a valuable white rose for massing and for hedges; and Paul Ricaut, still one of the most beautiful roses—alas that it blooms but once!

The Moss Rose (Rosa Centifolia Muscosa) is believed to be a sport from the Provence Rose, and was introduced to England from Holland, about the beginning of the seventeenth century. They are distinguished from other roses by the moss-like substance which surrounds the flower-buds, and by the marked Provence scent. The shoots are thickly covered with small spines. They are very subject, as a class, to mildew, and, with a few exceptions, require close pruning, rich soil, and high culture. On account of their beautiful buds they are great favorites with every one, and form decidedly the most valuable group of all the summer roses. The

finest varieties of the race are Common Moss, Crested, and Prolific or Gracilis. Most of the kinds have 7 leaflets.

The Provence Rose (Rosa Centifolia Provincialis), or Cabbage Rose, is supposed to have been known to the Romans, and derives its botanical name from the great number of petals or flower-leaves. Its origin is not known, but growing abundantly in Provence, the South of France, it has received that name, though the French themselves always call it by the botanical name of Rose à Cent-Feuilles. Their habit is somewhat drooping and straggling, the foliage massive; the flowers are generally of globular form and of delightful seent, so that to say a variety is as fragrant as the Cabbage Rose is commendation enough, so far as scent is concerned. This class demands good culture and close pruning; though but few in numbers, it was formerly an important group, and will ever be remembered through the Common Provence, or Cabbage Rose, a variety which, though blossoming but once, should be found in every collection of any size. None others are worth cultivating except the highly scented Crested Provence, which is better known as Crested Moss and appropriately placed with the Mosses.

The Sweet-Brier (Rosa Rubiginosa), or Eglantine, with 7 leaflets, is found growing wild in different countries, but the variety known as Common Sweet-Brier, a native of England, is the only one worth growing. It is almost needless to remark that the pink flowers, which are single, possess interest only for the botanist or artist; it is the leaves of the plant which are so attractive to general cultivators. After a warm spring shower, or when moistened by the morning or evening dew, the foliage gives out a delightful perfume, sui generis, equalled by few rose-blooms. Any garden of considerable size should certainly contain a few plants of this favorite rose of the poets; they may be planted individually, or in hedges, as they bear clipping without injury.

The Scotch Rose (Rosa Spinosissima), called by the French, Rosier Pimprenelle, is, true to the botanical name, the most thorny of all roses; but, though possessing some merit, has almost passed out of cultivation. It is a native of England and Scotland, and many varieties have been raised from seed and sent out by Scotch nurserymen, the names of which are quite forgotten, most of them deservedly so. They are of compact growth, very hardy, generally 9 leaflets, and produce

small flowers very early in the season; they require but little pruning. The two varieties which are perhaps most grown are two hybrids, Stanwell's Perpetual and Souvenir of Henry Clay (raised in America); these give a few flowers in autumn in addition to those in spring.

PART II.—PERPETUAL OR AUTUM-NAL ROSES.—Blooming more than once during the season, many of them continuously from June to November, or until cut off by the frost.

CLASS I.—SARMENTOUS, CLIMBING OR RUN-NING ROSES.

All of these will thrive in any ordinary, good garden-soil, that is free from standing water. The more vigorous varieties should have but little pruning; generally to thin out branches that crowd the others will be all the knife-work required.

Hybrid Climbing Roses (Rosa Hybrida Scandens) are of modern origin and come from various sources; the greater number are sports of various Hybrid Perpetuals; several of them have an extra vigor of growth at the expense of freedom and size of bloom, but one variety, Climbing Jules Margottin, is not

only one of the strongest growers among them, but yields fully as many flowers and of quite as good quality, as the parent plant. None of them make growth enough to cover large buildings, but for growing on a trellis or pillar they are very desirable. We are likely to have many valuable additions to this class in the near future; it is already an important group. Besides Climbing Jules Margottin, the most valuable members of the group which we have tested are Reine Marie Henriette, Princess Louise Victoria, and Climbing Victor Verdier. The former was raised from the Climbing Tea, Mme. Bérard, fertilized by General Jacqueminot; it is a highly scented red rose, somewhat resembling Cheshunt Hybrid, and though not a free autumnal sort will give a number of blooms throughout the summer months. Climbing Victor Verdier differs mainly from the parent in being of stronger growth, the flowers are somewhat smaller, and less freely produced. Climbing Edward Morren, Bessie Johnson, and Mdlle. Eugénie Verdier are new varieties which we have not seen in flower but are well spoken of. Other varieties in the class are Catherine Bell and Red Dragon. Glory of Cheshunt, raised from Charles Lefebvre, is a new variety sent out by G. Paul, of Cheshunt, England. We saw this in flower, during a visit to Cheshunt in August, 1880, and were very favorably impressed with it; should it succeed as well here as there, it will be the best rose of the class. It is a vivid crimson, freely produced, and of vigorous growth; it must be a natural hybrid, or cross, as no seedling of Charles Lefebvre yet produced will compare in vigor of growth with this new sort.

The Microphylla or Small-Leaved Rose (Rosa Microphylla) is a native of China, and was brought from there to England in 1823. The leaf-stalks are covered with numerous small leaflets, which give a name to the class. They are not quite hardy and have with one exception but little value. Alba or Alba Odorata seems to have some Tea blood; the flowers are a pale yellowish white, often pure white, and highly scented. This is a valuable rose south of Washington.

The Noisette or Champney Rose (Rosa Moschata Hybrida) is of American origin. From the seed of the White Musk Rose fertilized by the Blush China (Bengal), John Champney, of Charleston, South Carolina, raised a variety which was called Champney's Pink Cluster. A few years after, Philippe Noisette, a florist, also of Charleston, raised from the seed of

Champney's Pink Cluster a blush variety, which he sent to his brother, Louis Noisette, of Paris, France, under the name of Noisette Rose, not giving credit to Mr. Champney, as the originator of the class, which has ever since borne the wrong title of Noisette Rose. Louis Noisette received it about the year 1817. These roses, originally, had the characteristics in a great measure of the old Musk Rose, such as scent and a tendency to bloom in large clusters. The group is naturally of strong growth and nearly hardy, but the varieties which are now commonly grown have generally Tea blood in them, and have therefore lost much of their hardiness as well as the habit of blooming in clusters.

Among the true Noisettes, Aimée Vibert (Scandens) is decidedly the most valuable; the flowers are small but pure white, sufficiently full, of beautiful form; the foliage is a dark lustrous green; growth vigorous. Others belonging to this division are Admiral Rigney or Eugène Pirolle, Beauty of Greenmount. Caroline Marniesse, Fellenberg, Ophirie, Pumila, Washington, Woodland Marguerite. None of these will have interest for small cultivators, excepting perhaps Pumila, and this is somewhat more tender than the rest. Among the Tea-scented Noisettes we have some superb roses, which have far more substance, and are much more beautiful, than those named above, albeit less hardy. They make magnificent climbers under glass, and some of them succeed fairly well at the North out of doors, if given sheltered positions. In the Southern States they are by far the finest climbers that can be grown. Maréchal Niel, which is said to have been raised from Isabella Gray, according to general opinion, is at once the best Noisette. the finest yellow, and the most beautiful variety of any class that has ever been sent out. Chromatella is another superb yellow, in beauty of flower but a few degrees removed from the Maréchal; but she is shy of her charms, and unless carefully treated will not display her beauty. If you would have flowers in profusion from any of these roses, you must keep away the pruning-knife, excepting when it is necessary to cut away shoots altogether. Dr. Kane and Isabella Gray are two lovely roses of American origin which demand the same skill in management as Chromatella. Solfaterre is the most useful yellow of them all; it is hardier, of better habit, and more certain to flower than any, and the blooms are but little inferior. Besides all this, it makes the best stock on

which to bud Teas, or Hybrids from the Teas, of any that I am acquainted with, surpassing that excellent stock and parent variety, Lamarque. I should advise all persons who wish to grow Tea Roses, under glass, planted in borders, to put out plants of Solfaterre, and on these, after they have made sufficient growth, to bud all but the vigorous growing Teas. Maréchal Niel and all the Gloire de Dijon type of Teas are improved by being worked on this stock. Being much less hardy than the Common Brier, it would not be so good a foster-parent for the Teas which are worked out of doors, but under glass I know of nothing equal to it. Lamarque is a superior old white rose, which has somewhat gone out of cultivation; but this should not be, for it retains the clustering tendency of the race and produces an immense quantity of flowers during the season. It is a noble rose. Nearly all the fine Tea-Noisettes are traced back to Lamarque. Besides those already named, we have Céline Forestier, Mme, Caroline Kuster, Triomphe de Rennes, and W. A. Richardson, all fine vellow roses, of healthy habit and easy of cultivation.

The Polyantha Remontant Rose (Rosa Polyantha) was brought from Japan about the year

1865, by Robert Fortune, and is distinguished from all other classes by its panicled blooms. This peculiarity is not generally retained, however, when crossed with other roses, at least not in most of the varieties which have been sent out as seedlings from it. M. Jean Sisley, the eminent horticulturist of Lyons, says of this class: "It appears not to have crossed any of the other types with its own pollen. In a bed I made two years ago, with the seed in question (without practising artificial fertilization), I found pure Eglantines. I would therefore recommend rosarians to try artificial fertilization on the other types, as, if we could get Tea-scented Bourbons, and Perpetual Hybrids with flowers in panicles, we should change the whole aspect of the rose garden, and in a most interesting way modify the rose genus."

We believe some of the French rosarians have acted on this suggestion, and that they have in a measure been successful in producing roses with these characteristics, as in the two varieties Paquerette raised by Guillotfils, and Anne Marie de Montravel raised by Rambaux and Dubreuil. In August, 1880, when in Lyons, we saw a very pretty variety of this group raised from a seedling of Polyantha crossed by a Tea. The blooms, which

are of a very delicate salmon-pink, are freely produced and highly scented. If it proves to be of good habit, it will be a charming variety for bouquets, etc. It has since been named Mdlle, Cécile Brunner. These three sorts are the only ones of value as yet sent out; all are remontant, which is not the case with the parent variety.

The Climbing Tea Rose (Rosa Indica Odorata Scandens) is a class, or division, so distinct from the other Teas, that it requires a place for itself. Nearly all the varieties catalogued in this division are descendants of Gloire de Dijon, but hybridizers are making great progress of late, and it is probable we shall soon have varieties from other strains and outcrosses to be added to the list of Climbing Teas. The origin of Gloire de Dijon is unknown. It was raised in the South of France by Jacotot, and sent out in 1853, creating a great furor in rose-circles. My opinion is, that we have in this a natural hybrid produced from the seed of some strong growing Tea, or Tea-Noisette which had been impregnated by a Bourbon of robust habit. Gloire de Dijon and its offspring are of vigorous growth when once established, but the young plants require a long time (if grown from cuttings) before they have vitality enough to push into strong growth. It is therefore a great advantage to obtain them worked on some other stock, such as Solfaterre, De la Grifferaie, or seedling Brier. The foliage is very large, thick, and lustrous; thorns comparatively few; the flowers are of large size, globular shape, full, and with some fragrance. None of the progeny are quite equal to the mother variety in freedom of bloom, hardiness, or fragrance; Marie Berton, a superb pale yellow rose, ranks second. Next in order come Belle Lyonnaise. Mme. Trifle, and Mme. Bérard, this last being too much like Gloire de Dijon to be valuable in a small collection. The new variety, Reine Marie Henriette, which might be classed with these, has already been mentioned and described among the Hybrid Climbers. This sort, unlike the Gloire de Dijon race, will make strong plants grown from cuttings, rooting and growing as freely as General Jacqueminot. Besides these varieties, we have climbing Devoniensis, a sport from old Devoniensis and identical with it in flower, but of much stronger growth. Except Climbing Devoniensis they are more than halfhardy, and will do well out of doors in positions that are sheltered.

CLASS 2.—AUTUMNAL NON-CLIMBERS.

The Bengal or China Rose (Rosa Indica) is a native of China which was brought to Europe some time during the eighteenth century. Two varieties were introduced. the Blush China and Crimson China; from these a great number of seedlings have been raised, many of them crosses from Teas. Two groups are often made of these roses, but there is no necessity of this, as very few differ sufficiently to make two divisions desirable. They are of moderate, branching growth, with foliage and flowers both small. They require a rich soil and close pruning; thus favored, they give perhaps a greater quantity of flowers during the season than any other class. They are not hardy and have no fragrance, but in spite of this are a very valuable group on account of the profusion of crimson buds which are furnished by such sorts as Agrippina. A bed of Agrippina, on a lawn, is a most desirable thing; none of the other crimsons are quite equal to this old sort, from whatever point of view they be considered; among them, we note Eugène Beauharnais, Fabvier, Louis Philippe. The leading varieties of lighter shades are Cels Multiflora, Clara Sylvain, Ducher, and Mme.

Bureau. Two varieties of the class which have marked peculiarities are Viridiflora or Viridiscens, and James Sprunt. The former is probably a sport from the old Blush, or one of its immediate descendants; its peculiarity consists in green flowers which are freely produced; though curious, it is not attractive, and it possesses little value, save as a curiosity. James Sprunt originated in the year 1858. Rev. James M. Sprunt, D.D., a Presbyterian clergyman of Kenansville, North Carolina, divided some strong plants of Agrippina. Afterwards he observed a single shoot from one of these plants growing vigorously without flowers or branches; it grew over fifteen feet before it showed any flower buds, the rest of the plant retaining its normal characteristics. This branched out very freely the following year, and cuttings taken from it invariably retained the same climbing habit. The flowers of James Sprunt are somewhat larger and fuller than Agrippina, but are, of course, not produced till the plant has made considerable growth. It is a valuable greenhouse climber. What are called Fairy Roses are miniature Bengals; we do not consider them of any value, the Bengals are small enough.

The Bourbon Rose (Rosa Bourboniana) was

obtained from the Isle of Bourbon and taken to France (either seeds or plants) in the early part of the century. It was noticed growing in a hedge of Bengal and Damask Perpetual Roses, and on examination proved distinct from either, but seemed to have characteristics which pertained to both. It has been considered therefore as a natural hybrid, a product from these two groups. Except in the case of varieties strongly impregnated with Tea blood, this class is sufficiently hardy to withstand all but extraordinary winters; the tops may be blackened by the frost, but shoots will push forth from the lower buds. The varieties vary greatly in growth and other features, but most of them are of vigorous habit, and have dark, lustrous foliage. The flowers are generally of light shades and found in clusters, and are specially valuable in the autumn, when so many Hybrid Perpetuals belie their name. But it must not be overlooked that many Bourbon Roses are also shy autumnals, though mention of this is seldom made in any of the eatalogues, and the impression is therefore general that all Bourbon Roses produce flowers freely in the autumn. There are several well-known sorts, like Dupetit Thouars, Sir J. Paxton, etc., that will not produce flowers in the fall of the year at all, unless specially pruned and treated. Those which are of moderate growth require rich soil and close pruning; such are Hermosa, Queen of Bourbons, Souvenir de la Malmaison, and the new Queen of Bedders, all excellent varieties worthy a place in a small collection. The stronger growers need to have less wood removed, but must have moderate pruning. The best of them are Apolline, Comice de Tarn-et-Garonne. Duchesse de Thuringe, Edward Désfosses, George Peabody, and Malmaison. If these have the shoots moderately cut back so soon as each is through flowering, they will give a succession of flowers from June until cut off by the frost. Souvenir de la Malmaison is the general favorite of this group, but I consider Apolline as the most valuable; it flowers with the same freedom as Hermosa. when cut back as directed above, and has large cup-shaped blossoms of rosy-carmine that are very attractive. No collection can be complete with this variety left out.

The Hybrid Noisette Rose (Rosa Noisettiana Hybrida) is a comparatively new group of considerable importance. The varieties of this class generally, though not always, flower in small clusters and bloom very freely through-

out the season; they are of about the same degree of hardiness as the Bourbons-that is, will winter with perfect safety if given some slight protection, such as hilling up earth about the plants or covering them with a loose litter or evergreen branches. It is not easy to ascertain the origin of this class, but the varieties are mostly from crosses of Bourbon on Noisette and vice versa. They all require pretty severe pruning. The most beautiful in the class are Madame Noman, Mdlle. Bonnaire, and Eliza Boelle, a trio of white roses which might well represent the three Graces. There is too strong a resemblance between them to make all desirable. in a small collection, but it is difficult to know which of them to reject. Our own preference inclines towards Madame Noman. These are the most delicate in habit: of the stronger growing varieties which partake more of the Noisette character, Coquette des Alpes, Coquette des Blanches, and Mme. Auguste Perrin are most noteworthy. Baronne de Maynard, Madame Alfred de Rougemont, and Madame François Pittet are worthy a place in collections of considerable extent.

The Hybrid Perpetual, or Hybrid Remontant Rose (Rosa Damascena Hybrida) is by far the most valuable, if not the most beautiful, of all groups of roses. The first varieties sent out were mostly from crosses of Bourbons upon Damask Perpetuals and Hybrid Chinas: afterwards crosses were made with varieties of Provence, Damask, and French roses upon Bourbons, Bengals, and Teas, and vice versa. The progeny of these was then recrossed with different classes, and so it is we have a group of the most heterogeneous character, combining the good and bad qualities, in greater or less degree, of nearly all the others. There are certain types in this group which gather together many varieties, in which the relationship to some one sort is readily discerned, as the Jules Margottin type, General Jacqueminot and its progeny, and the La Reine family; but there is a vast number of sorts whose kinship cannot be traced; this is owing to the fact that the greater number of varieties have been raised from mixed seed, where no record was made of the names; and also that in many cases, where the seed of different varieties was sown separately, there has often been a carelessness in making such a record, dependence being placed on the memory alone. So that many varieties whose parentage is given are oftentimes not properly traced;

it being made a matter of conjecture, or left to fallible memory to recall. The varieties differ greatly in all their characteristics, and so require somewhat different culture and treatment. Those that are of vigorous growth, as in other classes, need much less pruning than those of dwarfed habit, for if cut back too severely they run too much to wood. There have been hundreds of varieties of this class sent out, and the number of new sorts somewhat increases each year. Eugene Verdier, of Paris, has been foremost in the dissemination of new sorts, and it will be interesting to take note of the number of varieties offered by him, including those of his own raising, for a few vears back. In 1872 he offered for sale thirty-nine new Hybrid Perpetual Roses, eight of them his own seedlings; in 1873 he offered forty-five, ten of them his own; in 1874 he offered forty-six, ten of them his own; in 1875 he offered forty-eight, twelve of them his own; in 1876 he offered thirtyfour, ten of them his own; in 1877 he offered forty-one, ten of them his own; in 1878 he offered forty, ten of them his own; in 1879 he offered forty-two, eight of them his own. There are, of course, several new sorts each year which M. Verdier does not get hold of;

including these, it will be seen that there are not less than forty-five new Hybrid Perpetual Roses introduced each year; perhaps onefifth of them are worth growing, certainly not more. The rest, either from being inferior in quality to old-established sorts, or from too great similarity to them, are ultimately consigned to the rubbish heap. No satisfactory selection can be made from this innumerable class, except as made for some special end, and having some prominent features in view. We therefore give special chapters to a consideration of the best Hybrid Perpetuals for special purposes, in which the various merits and peculiarities of different varieties are discussed at some length.

The Hybrid Tea Rose (Rosa Indica Odorata Hybrida) is a new group produced from crossing Teas with Hybrid Perpetuals. This is a class but yet in an incipient state; within a few years it is likely there will be a great number of varieties where now there are but few; it is also to be expected that there will be various and distinct types among them. Indeed among those we already have, La France, Cheshunt Hybrid, and Beauty of Stapleford show almost as marked variations as could be found among any Hybrid Perpetuals. In these three, we have La France,

which, with a perfume peculiar to itself, is the sweetest of all roses, and equal to any in the profusion of bloom; Cheshunt Hybrid, which shows the Tea blood in its foliage more than in any other way; what fragrance it has is more like that of Alfred Colomb or Prince Camille than like a Tea: it seldom shows a flower after the first of August; and Beauty of Stapleford, entirely without scent, but with a decided resemblance to the Teas in foliage, appearance of the flowers, and profusion of bloom. These roses must prove more hardy than most of the Teas, but more susceptible to frost and of more delicate constitution than the majority of the Hybrid Remontants. Certain ones among them, as La France, Duchess of Connaught, and Viscountess Falmouth, combine beautiful flowers with great profusion of bloom and intense fragrance; such are the kinds that give value to the class, and unless raisers can supply new varieties in the group which combine these three qualities, they should be withheld as unfit to send out. Jean Sisley, Captain Christy, and Beauty of Stapleford may have value now, while the group is yet small, but being devoid of scent are not varieties to pattern after. Captain Christy occupies a somewhat equivocal position in this class,

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being seeded from a Hybrid Perpetual Rose (Victor Verdier) fertilized by the Tea Safrano, while all the others are seeded from Tea Roses fertilized by Hybrid Remontants; but it seems eminently proper that at least all direct crosses between the two classes, no matter whether the seed parent be Tea or Hybrid Perpetual, should be grouped with the Hybrid Teas. These roses are all of moderate growth, and must have close pruning and be grown in rich soil. Most of them (ten varieties) were sent out in 1879 by Mr. Henry Bennett, of Stapleford, England. It is not yet known how desirable they will be for out-of-door culture, but for forcing under glass a few of Bennett's raising are proving to be of some value. They seem to produce as many flowers in the season as do the Bengals, excelling many of the Teas proper in profusion of bloom. Beauty of Stapleford and Duchess of Westminster furnish very pretty rose-colored buds, which are unfortunately scentless. Duchess of Connaught, at a first glance, might readily be mistaken for La France, having much the same shade of color, but the flowers are somewhat smaller and of rounder form; it is the only variety which resembles La France in perfume. Jean Sisley does not open well in the

house, and is a scentless variety of rather a muddy shade of color; we do not consider it of value. Nancy Lee is highly perfumed and gives lovely formed buds, but it is of very delicate habit. Michael Saunders and Viscountess Falmouth are two sorts of considerable substance, highly scented, which we consider valuable introductions: the latter has a delightful blending of the perfumes to be found in the parents President (Tea) and the Moss Soupert-et-Notting, the odor of the Moss predominating. Duke of Connaught and Hon. George Bancroft are two dark roses, which will be more valuable to the florist, if sufficiently vigorous, than all the rest; the former is the deeper in shade, but, in spite of its breeding, is without scent; the latter, though of lighter color, is highly perfumed; both give beautiful buds. Pearl is a small rose with a distinct Bourbon fragrance, a good thing for cut flowers. The four new Hybrid Teas of French origin, Cannes La Coquette, Mme. Alexandre Bernaix, Mme. Etienne Levet, and Mdlle. Brigitte Violet, all promise to be useful sorts. This class of roses, on account of its novelty and promise of usefulness, is now looked upon with more interest than any other, and will, in a few years, very likely prove the most popular class, excepting the Hybrid Perpetual and Tea.

The Perpetual Moss Rose (Rosa Centifolia Muscosa) has the same characteristics (and needs the same treatment) as the Moss Rose already described, but in addition to the June blossoming produces flowers during the summer and autumn. There are but three sorts which we consider worth growing. Many worthless varieties in the class have been sent out; if the flowers were of fair quality, they were so seldom seen after the month of June as to belie their name. Mme. Edward Ory and Salet both give mossy buds that are not equal in quality to other Mosses, but give them at a time of year when the others are not to be had, and are therefore very useful. Soupert-et-Notting is not encumbered with a superfluity of moss, if it is with a name, but we have here a large rosecolored sort, very full, of fine form, and a strong delightful perfume that may keep one sniffing for a long time before he can go away satisfied. Our eyes may brighten at the sight of other autumnal roses more beautiful than this, but there are very few sorts so grateful to that other important sensesmell. With oh! and with ah! and sundry other relevant remarks we may gloat over this rose, as does the street Arab inspecting the pies and confections in the window of a pastry-shop.

The Tea Rose (Rosa Indica Odorata) may well be taken as a synonym for all that is delicately beautiful. What refinement of color; what subdued, yet powerful, fragrance do they possess! They are indeed the centre of loveliness; like fair maids at a reception surrounded by admiring groups, these lend beauty to the others, which may well strive to find a near approach to their sweet presence, that perchance they may receive a smile, and borrow beauty, diffused from their chaste loveliness. There has always been a warm place in my heart for the Tea Rose, for, sub rosa, let me confess it, this was my first love (I fear no conjugal jealousy or censure in making this confession); a bed of Tea Roses planted near my father's house first won me as a devotee to the rose, and by foliage and flower I learned to distinguish varieties among them before I even knew the names in other classes; I should now as soon think of doing without roses altogether as not to have a bed of Teas in my garden.

Several varieties in this group were brought to England from China, their native place, in the early part of the century;

among them were the Blush Tea and Yellow Tea, two varieties from which most of the sorts now in cultivation have descended. Both of these kinds are free seed-bearers, the Yellow Tea more particularly; it has beautiful buds of pale yellow, but the habit of the plant being unhealthy it has now nearly gone out of cultivation. The old Blush is also no longer named in most catalogues, but there are many rosarians still living who cherish it in affectionate remembrance and recollect it as one of the most fragrant in the family. Most of the varieties in this group are very sensitive to any neglect, and will show very quickly whether they have met with good or ill treatment; the soil can scarcely be made too rich for their reception, but it must be light, warm, and well drained. If the place chosen consist of heavy clay soil, a foot or more must be dug out, carted away, and filled up with that which is mellow. As most of the varieties are of but moderate growth, they require rather close pruning. To protect them during winter, we advise hilling up earth about the plants and then spreading over evergreen branches or loose litter. Care must be exercised that the plants be not embedded and packed down with a heavy mass, otherwise decay and

death will ensue; some air will needs be admitted; the plants must be protected but not smothered.

The Tea class is much more uniform in the characteristics of the different varieties than are any of the other large groups. In judging of their merits we lay less stress on fulness of flower than on other claims, because most of those which have comparatively few petals are very beautiful in bud, and it is for the buds that Teas are largely prized. Thus Isabella Sprunt and Marie Guillot are two roses highly prized, but one of them is only semi-double, while the other has so many petals that they do not always unfold satisfactorily. The flowers vary very greatly in size as well as in fulness, some of them, like Canary, Caroline, and Monsieur Furtado, being quite small, and others being large, as Madame Bravy, Souvenir d'un Ami, etc.

This has now become such a large division that it is no easy matter to select a number of varieties for commendation, but those named below are among the most beautiful, and also of the most healthy habit-a very important feature to be considered.

Bon Siléne, Isabella Sprunt, and Safrano

are to be chosen for their buds only; Mme. Falcot, a seedling of Safrano, has fuller flowers of nearly the same shade, but they are not so freely produced and the habit of the plant is more feeble. The following are fine in both bud and flower: Bougère, Catherine Mermet, Comtesse Riza du Parc, Gérard Desbois, Homer, Jean Ducher, Jean Pernet, Madame Bravy, Madame de Vatry, Madame Lambard, Madame Welche. Marie Ducher, Marie Van Houtte, Monsieur Furtado, Niphetos (a poor grower), Perle des Jardins, Rubens, Sombreuil, Souvenir d'un Ami, Triomphe de Luxembourg. Among these Niphetos is the only one of bad growth, but it is so much the finest of the white Teas. that it should find a place in every collection of any size. Full descriptions of all these sorts will be found elsewhere.

III.

TECHNICAL TERMS.



HE rosarian and the hasty reader are invited to pass by this chapter, but if, unversed in rose-lore, any reader become interested in the

subject, there will be found many terms, mostly botanical, which require some explanation, as presented herewith, and to which he may be glad to refer.

Anther. A rounded knob at the summit of the filament; a portion of the stamen which contains the pollen or fecundating matter of the flower.

Armed. Provided with thorns or prickles.

Callus. A swelling which occurs at the base of a cutting previous to the formation of roots.

Calyx. An envelope which holds the other parts of the flower; it consists of narrow green leaves or sepals of a pithy texture; these sepals generally cohere by their edges.

- Corymb. Flower stalks produced along a common stalk which rise so as to form a level top.
- Disbudded. Deprived of flower buds. Flower buds are pinched or cut away, in order that those remaining will attain greater perfection.
- Eye. The stamen and pistils of a flower. Sometimes this term is used synonymously with bud.
- Filament. The thread-like part of the stamen which supports the anther.
- Hip or Hep. The fruit or seed pod.
- Hybrid. A cross, which is the product of a mixture of two different species.
- Leaflet. One of the divisions of the compound leaf with which all roses are furnished; these are attached to the petiole by minor foot stalks.
- Maiden Plant. That which blooms for the first time after budding or grafting.
 - Ovary. The hollow portion at the base of a pistil containing the ovules or bodies destined to become seeds.
 - Panicle. A cluster of flowers irregularly

- produced from a main stem, or peduncles variously divided.
- Pedumple. The stalk upon which the flower is borne.
- Petal. A leaf of the flower.
- Petiole. The stalk to which are attached the several leaflets.
- Pistil. The columnar seed-bearing organ in the centre of a flower; sometimes there are several in one flower; it consists of one or more styles, one or more stigmas and the ovary.
- Pollen. The fecundating powdery substance found in the anthers.
- Remontant. As applied to roses that which flowers the second time. From the French verb to remount.
- Sepals. Those leaves which form the calyx.
- Sport. A shoot or sucker from a plant which shows either in foliage, flower, vigor of growth, or in all of them, some peculiar feature or features, distinct from the rest of the plant.
- Stamens. The male organs of fructification in a flower, surrounding the pistil.

- Stigma. The top portion of the pistil which receives the pollen and connects with the ovary by a tube through the centre of the style.
- Style. The erect column, sometimes several combined in one, which connects the stigma with the ovary.
- Sucker. A branch or root which proceeds from the root, or stem of the plant, just below the surface.

IV.

POSITION AND SOIL.



HE first requisite in the culture of roses is the selection and preparation of a suitable place for planting. This is very important, as

all that follows depends upon the care used in this first step.

To begin with, then, choose the best place you have in the garden, a place where you can offer sufficient protection by means of hedges or board fences from bleak sweeping winds. When fences are used, their general ugliness can be most appropriately clothed by roses themselves. A warm, sunny position is also requisite; if so situated that there is an exposure to the morning sun, and the hot rays during the afternoon are in part or wholly shaded, all the better, but a certain amount of sunlight is as essential to a rose's welfare as to our own, though many of us do not show our appreciation of the blessings of sunlight as gratefully as do our roses. Be-

sides scattering them through our gardens, roses may be made very effective planted in borders about our lawns, either individually or in groups, and also planted in beds on the lawn.

Thoughtlessness often leads people to plant roses under the shadow of overhanging buildings, or close to large deep-rooted trees; and then there is inquiry and wonderment why the plants are always covered with mildew? and why they do not blossom and grow as those in a neighbor's yard, where there are always beautiful roses to be seen? There is much more in common, or should be, between animal and plant life, than is practically acknowledged by most of those who strive to grow roses. Both demand for their perfect development a sufficiency of nourishing food and drink, a pure atmosphere, a temperature as equable as possible, and thorough cleanliness. Let every one who plants roses bear this in mind and we shall find a wonderful improvement in the quality and quantity of the flowers.

"Some having heard that a free circulation of air and abundance of sunshine are essential elements of success, select a spot which would be excellent for a windmill, observatory, beacon, or Martello tower; and there the poor rose-trees stand, or, more accurately speaking, wobble, with their leaves, like King Lear's silver locks, rudely blown and drenched by the to-and-fro contending wind and rain.

"Others, who have been told that the rose loves shelter, peace, repose, have found 'such a dear snug little spot,' not only surrounded by dense evergreen shrubs, but overshadowed by giant trees. Rest is there assuredly—rest for the rose, when its harassed life is past, when it has nothing more for disease to prey upon, no buds for the caterpillar, no foliage for the aphis—the rest of a mausoleum! I was taken not long ago to a cemetery of this description, which had been recently laid out; and there was a confident expectation of praise in the pretty face of the lady who took me, that I was sorely puzzled how to express my feelings. I wished to be kind, I wished to be truthful; and the result was some such a dubious compliment as the Sultan paid to the French pianist. The Frenchman, you may remember, was a muscular artist, more remarkable for power than pathos; and he went at the instrument and shook and worried it as a terrier goes in at rats. His exertions were sudorific: and when he finished the struggle, with beads on his brow, the Sultan

told him, 'that, although he had heard the most renowned performers of the age, he had never met one who-perspired so freely!' Nor could I, with my heart as full of charity's milk as a Cheshire dairy of the cow's, think of any higher praise of the plot before me than that it was an admirable place for fern; and therefore, when my commentary was received with an expressive smile of genteel disgust, as though I had suggested that the allotment in question was the site of all others for a jail, or had said, as Carlyle said of the Royal Garden at Potsdam, that 'it was one of the finest fog-preserves in Europe,' then, without further prevarication, I told the truth. And the truth is, that this boundless contiguity of shade is fatal, and every overhanging tree is fatal as an upas-tree to the rose. The rose in close proximity to a foresttree can never hope to thrive. In a two-fold sense it takes umbrage; robbed above and robbed below, robbed by branches of sunshine and by roots of soil, it sickens, droops, and dies." *

In connection with a choice of location, we must see that roses are provided with a proper soil. They will do well in any ordinary garden soil that is free from standing

^{*&}quot; A Book about Roses."

water and well drained. When there is too much clay, the soil can be made sufficiently friable by the application of wood and coal ashes, lime, burnt earth, etc. When, on the other hand, a soil is sandy or too light, we need to bring clay, muck, leaf mould, etc., to obtain sufficient body. This soil must, of course, be thoroughly manured and worked: frequent spading will do a great deal toward lessening the stiffness of a heavy soil. On no account attempt to make roses grow in a wet spot; if there be such a place which it is desired to use, let the soil be thoroughly drained by sinking tiles to a depth of four feet, or provide in some other way for carrying off the water. Where it is impossible to find a position capable of being drained by tiles from the ground being too flat, the soil may be removed to a depth of a few feet, and stones, bricks, débris of any kind, thrown in: but whenever the water can be carried off in tiles it is better to do so.

V.

PLANTING AND PRUNING.



OSES that have been grown out of pots should, if possible, be planted while in a dormant condition; for, if removed for transplanting while

the sap is flowing freely, and the plant is in vigorous growing condition, there occurs too great a shock, one from which the plant does not easily recover. All roses, therefore, taken from the open ground should be planted. during the autumn or spring; the more hardy kinds, such as the summer roses, most of the Hybrid Perpetuals, and possibly some of the Bourbons, may preferably be planted in the autumn: the more tender sorts in the spring. Plants that have been propagated from cuttings, or layers (on own roots), should be set, as nearly as possible, as they were grown in the nursery. Budded or grafted plants should be set so that the junction of the bud or graft is about two inches beneath the surface of the soil. Planted in this

way there is much less liability of suckers from the stock being put forth, and opportunity is afforded for the plant to put forth roots from the bud or graft; this often takes place, so that ultimately the plant is virtually on its own roots. Roses that are pot-grown can be planted at any time from April till October, but if set out during the heat of summer special care must be given in watering, etc. Respecting the sized plants which should be set out, we earnestly advise all those who can obtain them to put out plants of one or two years' growth that have made a free but not excessive growth, with well-ripened wood; these can be obtained at most of the large reliable nurseries. Many florists do a large and exclusive business in sending by mail small plants, cuttings of a few weeks' growth; this is all very well, to give opportunity to many people to obtain plants, which could not, owing to the lack of express or railroad facilities, be forwarded in any other way; but these bantlings often require much care and tender nursing, and are seldom of any account until the second year from planting, for in order to promote their growth the flower buds should be kept cut off during the first year-if allowed to produce any, they are not only not of first quality, but enfeeble

the plant; whereas older plants, carefully grown, will give effective results the first year. Some nurserymen make a practice of cutting away all the flower buds from free blooming varieties, which form on the young plants during the first year's growth; this practice is to be highly commended; such plants are far more valuable to the purchaser than those not so treated. Quality should always be preferred to quantity; this is true whether respecting the plants or the flowers of roses, and one good two-year plant is worth more than six of the sucklings often sent by mail-poor, weak infants, which never should have been sent from the nursery—just as one good bloom of Marie Baumann, or Alfred Colomb, is worth half a dozen of Pius the IX. or Triomphe de l'Exposition.

Care must be exercised that the soil about the plant be well pulverized and no hard lumps allowed to remain in contact with the roots; after the plants are set out, be sure that they are firmly pressed in with the feet or hands; plants that are loosely stuck in the ground can never do well. Another prominent thing to bear in mind is: never allow the plants to lie exposed to the wind and sun, keep them covered until ready to plant. The distance apart is somewhat regulated by

the vigor of growth; the strongest growers should be put about three feet apart; for those of weaker habit, one or two feet would suffice. In planting beds, if of more than one variety, the strongest sort should be in the centre and those of the weakest habit on the outside. It is almost unnecessary to say, that no planting should be attempted if the ground be very wet, or very dry, as during a summer drought; and that very late in the season, whether autumn or spring, is not a good time to set out roses; few things suffer so much from late spring planting as do roses; if the buds have pushed forth, it is generally time and money thrown away to set out plants, other than those pot-grown. The reason pot-grown plants can be used after the others is that the soil in which they are grown can be retained when the roses are removed from the pots, and the plants continue to grow without check. Pot-grown roses must not be immediately exposed to the rays of a hot sun; if planted out they should receive some shade for a few days, and be carefully watered. Water must not be applied during the heat of the day, but in the morning or evening.

The pruning of roses is one of the most important features connected with their cul-

ture, but no directions that can be given will prevent some mistakes from being made. It is practical experience alone that will enable one to determine just what is to be done in each individual case, and just how to do it; but the general principles that should govern can be easily stated and comprehended. I would recommend the operator to procure what is known as a pruning-knife, having a hooked blade, and also a secateur, or pair of pruning-shears; the latter is better for cutting away shoots from the centre of a bushy plant and is the quickest and most easy to handle, but where a very smooth cut is desired, the pruning-knife will be found most effective; it is also less likely to bruise the bark. All roses that come from the open ground should be pruned before planting or immediately after. Many persons who are careless, or not informed, set out the plants just as they come from the nurseries: under such circumstances the plants cannot thrive, the sap has too many buds to nourish and a weak growth ensues. The shock from transplanting must be met by a shortening of both shoots and roots; the shoots being shortened the number of buds to draw upon the sap is reduced and a more vigorous growth follows. Not only should all bruised roots be pruned, cutting

away to the sound part, but also all those large ones that are uninjured, for by this they are induced to put forth small roots of fibrous nature, which are of great assistance in promoting health and vigor of plant.

The cut made in pruning should be as nearly horizontal as possible, so that there shall be but a slight exposure of wounded surface; it is generally preferable to cut from the inside, and to see that the top bud which is left points outward. If the plants bleed after the operation the surface of the cut should be smeared over with wax or other substance; often a coating of mud will answer. Roses are pruned both early in the spring and in the autumn; we prefer the former season, but when done then, care must be had not to put it off too late, for if not attended to early, the sap will have pushed toward the upper buds, and when pruned there will be bleeding or exuding of the sap. The pruning should therefore take place while the plants are dormant, and before the sap begins to flow. The chief objects to be held in view in pruning are the formation of a symmetrical plant, and to promote the formation of bloom buds. To secure these the following general rule must be observed: Plants of delicate habit and weak growth require severe pruning; those that are vigorous in growth should have the shoots only moderately shortened, but the branches well thinned out. If varieties of vigorous habit are closely pruned, a great growth ensues and very few flowers; hence it is of the utmost importance to know the character of the variety that is to be operated on. Besides pruning the plants in March, a summer pruning is desirable with many varieties of Hybrid Perpetuals, so soon as the June blossoming is over, in order to induce the formation of flower buds later in the season.

VI.

MANURES.



E trust that impatient readers will not pass by this chapter with turned-up nose and a sniff of disdain, for the subject is an impor-

tant, albeit an unpleasant one, to handle. We shall make it short, if not sweet.

Manure, if new, should never be applied so as to come in contact with the roots, but may be spread on the surface of the earth as a mulch; this is often done with advantage in the autumn, digging it in in the following spring. Manure which is to be dug in about the plants must be decomposed, and may be advantageously mixed with a compost of good turfy loam and spent hops; all animal manure is useful for roses, particularly droppings of the cow, pig, and sheep; these mixed with a compost as named form the best fertilizers that can be used. Besides these, the cleanings from the poultry house, night soil, soot, bone-dust, and guano will

all be found excellent, but nothing I believe is better than a mixture-one-third eachof cow-dung, rotted hops, and turfy loam. Horse-dung is much better for heavy soils than for light, and cow-manure does not do so well for soils inclining to be wet. In the hot, dry weather, which we often have in summer, a good watering of liquid manure will be of very great benefit to the plants, more especially during the time of the forma-"The happy rosarian tion of flower buds. who has a farm-yard of his own will, of course, have a large covered tank therein, for the reception and preservation of liquid manure. At all times, of drought especially, this will be more precious as a restorative and tonic to his roses than the waters of Kissingen, Vichy, or Harrogate to his invalid fellow-men. Only let him remember this rule of application-weak and oft rather than strong and seldom. I bought my own experience by destroying with too potent potations-forgetting that infants don't drink brandy neat—the delicate fibrous rootlets of some beautiful rose-trees on the Manetti stock."* Night soil would be found a most valuable manure, if people would only rightly prepare and use it, but each rosarian

^{*} S. R. Hole.

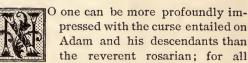
points to the other and wonders why no one is found to make use of this valuable commodity which now goes to waste, but no one takes hold. "The Romans reverenced Cloacina, the goddess of the sewers, and the statue which they found of her in the great drains of Tarquinius was beautiful as Venus's self; but they honored her, doubtless, only as a wise sanitary commissioner who removed their impurities, and, so doing, brought health to their heroes and loveliness to their maidens. They only knew half her merits; but in Olympus, we may readily believe, there was fuller justice done. Although weaker goddesses may have been unkind-may have averted their divine noses when Cloacina passed, and made ostentatious use of scent-bottle and pocket-handkerchief -Flora, and Pomona, and Ceres would ever admire her virtues, and beseech her benign influence upon the garden, the orchard, and the farm. But the terrestrials never thought that fax urbis might be lux orbis, and they polluted their rivers, as we ours, with that which should have fertilized their lands. And we blame the Romans very much indeed; and we blame everybody else very much indeed; and we do hope the time will soon be here when such a sinful waste will

no longer disgrace an enlightened age; but beyond the contribution of this occasional homily, it is, of course, no affair of ours. Each man assures his neighbor that the process of desiccation is quite easy, and the art of deodorizing almost nice; but nobody 'goes in.' The reader, I have no doubt, has with me had large experience of this perversity in neighbors, and ofttimes has been perplexed and pained by their dogged strange reluctance to follow the very best advice. There was at Cambridge, some thirty years ago, an insolent, foul-mouthed, pugnacious sweep, who escaped for two terms the sublime licking which he 'annexed' finally, because no one liked to tackle the soot. There were scores of undergraduates to whom pugilism was a thing of beauty and a joy forever, who had the power and the desire to punish his impudence, but they thought of the close wrestle-they reflected on the 'hug,' and left him. To drop metaphor, there is no more valuable manure; but it is, from circumstances which require no explanation, more suitable for the farm than the garden, especially as we have a substitute [farm-yard manure] quite as efficacious, and far more convenient and agreeable in use." *

^{* &}quot;A Book about Roses," S. Reynolds Hole.

VII.

INSECTS AND DISEASES.



things hostile and bad, animate and inanimate, seem to combine in greater degree to prevent the successful cultivation of the rose than any other well-known flower. things, for example, can be more effective in their season than a massive bed of pæonies; they have all the shades of the rose, are more hardy, and know nothing of mildew or the ravages of insect enemies; but they are almost entirely neglected-very unjustly too-that proper attention may be given to our roses, which need constant care and attention to make their culture profitable. The price to be paid for beautiful roses is eternal vigilance inspired by reverent love. "He who would have beautiful roses in his garden must have beautiful roses in his heart.

He must love them well and always." A genuine lover of roses is not discouraged by the knowledge of the difficulties that attend the culture of his favorites, the rather is he incited to succeed in spite of all obstacles and drawbacks, knowing that as faint heart never won fair lady, he cannot expect the smiles of Marie Baumann, or Marie Van Houtte, unless he thoroughly cultivate the acquaintance of these beauties, and wait upon them with more attention and deeper concern than would the gallant of the ball-room upon the attendant belles.

The following are the chief foes with which the rose has to contend:

THE APHIS (Aphis Rosæ), or Green Fly, is well known by all who have grown roses. It is a small green louse, about one-eighth inch in length when fully grown, usually wingless. Their bodies are oval and soft, they secrete a sweet fluid, of which ants are very fond. The presence of ants on roses is good evidence, did we require it, that the aphis is at work. They are very prolific in breeding; Réaumur estimates that one individual in five generations may become the progenitor of nearly six thousand millions of descendants. Through their slender beak they suck the juices of the plant, always working at the

tender shoots, and in a short time will, if unmolested, destroy the vigor or vitality of any rose they infest. Much the best destructive agent to use against them is tobacco smoke; when this cannot be applied, a liquid solution, made from tobacco stems or leaves, or from quassia, will be found an efficient method of working their destruction. Take four ounces of quassia chips, or tobacco stems, and boil them about ten minutes in a gallon of soft water; strain off the chips, and add four ounces of soft soap, which should be dissolved in it as it cools, stirring well before using. It may be applied by dipping a whisk broom in the mixture and sprinkling all shoots that are infested. Whale-oil soap, dissolved in water, is also a useful remedy.

MILDEW.—This is a fungous disease often caused by great and sudden atmospheric changes, and by a long continuance of damp, cloudy weather. The best proved remedies are sulphur and soot; one of these should be applied the moment the disease makes its appearance; the plants should be sprinkled with water so that the substance applied will adhere, or else let it be put on early in the morning while the dew is yet on the plants. Some localities are much more subject to visitations of this disease than others, and in

such places care should be taken not to plant varieties that are known to be specially liable to mildew. As it is contagious, spreading from one plant to another, we should advise the destruction of such sorts as belong to the Giant of Battles type (see chapter on Typical Roses); better it is to sacrifice a few kinds than that all should be disfigured with this annoying fungus. Generally mildew makes its appearance in the autumn, when the nights grow cool; at this season it works but little harm and may be disregarded, since the plants have made their growth and the wood is nearly, or quite, ripe.

THE RED SPIDER is a most destructive little insect, which generally commits its ravages in the greenhouse; they only make their appearance when favored by a hot, dry atmosphere. These insects are very small, scarcely distinguishable by the eye, if isolated; they are of a dark, reddish-brown color, found on the under sides of the leaves. They cause the foliage to assume a yellow tinge, and will soon make sickly the plant they infest. A few applications of whale-oil soap dissolved in warm soft water will often destroy them; this can be applied with a syringe, taking care to throw the water upward to reach the leaves affected, late in the

afternoon, and then washed off with pure water the following morning. This insect does not attack plants that are syringed with water daily, and all plants grown under glass, not in flower, should be sprayed regularly. When a house that has been infested with Red Spider can be emptied of the plants, it is well to burn sulphur on charcoal embers; the fumes from the sulphur are fatal to nearly all insect life, and a house can by this means be soon freed from this insect; as burning sulphur is also destructive to plant life, this process can only be used in emptied houses, unless only a slight quantity be used at a time.

Rose Hopper, or Thrips (Tettigonia Rosa, of Harris).—This is perhaps the most trouble-some pest with which the rose is afflicted in the open air. It is a small, yellowish-white insect, about three-twentieths of an inch long, with transparent wings. Like the Red Spider, they prey upon the leaves, working on the under side; they seem to go in swarms and are very destructive to the plant, soon causing the foliage to assume a sickly, yellow appearance. As they jump and fly from one place to another, their destruction is less easy to accomplish than is the case with other enemies. We have found syring-

ing the plants with pure water, so as to wet the lower side of the leaves, and then dusting on powdered white hellebore, will destroy or disperse them. Another remedy, nearly or quite as good, is a solution of whale-oil soap, which must also be applied so as to reach the leaves from beneath.

Rose Caterpillar, or Leaf-Roller .-There are several kinds of caterpillars, belonging to an order called Lepidoptera, which prey upon the rose. They are the young of moths or butterflies, varying from one-half inch to three-fourths inch in length; some of these are green and yellow, others brown; they all envelop themselves in the leaves or burrow in the flower buds. Powdered hellebore sprinkled over the plants will prevent in a large measure their moving over the plants, but the only method of killing them, which is really effectual, is by crushing between finger and thumb. This crushing process may not be considered an agreeable pastime, but it must be done, and fastidious people can either delegate the work to others, or go armed, not cap à pie, but with gloved hands, and perform the work themselves. It is time to look out for these marauders when the buds are formed and begin to show signs of plumpness.

Rose Chafer, or Rose Bug.-This (the Melolontha subspinosa, of Fabricius) is a brown beetle, a little less than one-half inch in length, which comes from the ground about the second week in June, or when the Damask Rose is in blossom. Many localities are never troubled with this pest; where it does appear, it is never alone, but in swarms; the insects attack the flowers in preference to the foliage, and seem to be more fond of white and light-colored flowers than of those which are dark. In a very short time they entirely disfigure and greatly injure the plant which they attack; an application of Paris green dusted over the plants is very destructive to them, but being so dangerous a poison, we recommend hand-picking and burning of the bugs in preference. The application of tobacco-water, whale-oil soap, etc., is useless, for in order to have any effect upon the bugs the solution would have to be made so strong that it would work injury to the plants.

Rose Slug.—These slugs are the larva of a saw-fly, called by Harris *Telandria Rosæ*, an insect about the size of a common housefly, which comes out of the ground during May and June. The female flies puncture the leaves in different places, depositing their

eggs in each incision made; these eggs hatch in twelve or fifteen days after they are laid. The slugs at once commence to eat the leaves, and soon make great inroads upon the foliage, if not checked. They are about one-half inch long when fully grown, of a green color, and feed upon the upper portion of the foliage. The best remedies are powdered white hellebore, or a solution of whale-oil soap.

WHITE GRUB.—These grubs are the young of those buzzing, sticky abominations known as May-bugs. The beetles are thus described by Harris: "During the month of May, they come forth from the ground, whence they have received the name of May-bugs or May-beetles. They pass the greater part of the day upon trees, clinging to the under sides of the leaves in a state of repose. As soon as evening approaches, they begin to buzz about among the branches, and continue on the wing till toward midnight. In their droning flight they move very irregularly, darting hither and thither with an uncertain aim, hitting against objects in their way with a force that often causes them to fall to the ground. They frequently enter houses in the night, apparently attracted as well as dazzled and bewildered by the lights. Their vagaries, in which, without having the power to harm, they seem to threaten an attack, have caused them to be called dors, that is, darers; while their seeming blindness and stupidity have become proverbial in the expressions 'blind as a beetle' and 'beetleheaded.' After the sexes have paired the males perish, and the females enter the earth to the depth of six inches or more, making their way by means of the strong teeth which arm the forelegs; here they deposit their eggs. . . . From the eggs are hatched, in the space of fourteen days, little whitish grubs, each provided with six legs near the head, and a mouth furnished with strong jaws. When in a state of rest, these grubs usually curl themselves in the shape of a crescent." These annoying pests live in the earth for three years, feeding on the roots of roses and other plants, and give no sign of their presence till the plant on which they feed commences to wither or turn sickly. So soon as evidence is given of their ravages, the plant should at once be dug around and search made for the grub, that his destruction may save other plants from death. The grub is more fond of the roots of strawberries than of any other food, and if these berries are grown alongside of roses a careful lookout must be had. It is a fortunate thing that the grub does not confine himself to a rose-diet, else would the culture of our favorite flower often be conducted with more plague than pleasure or profit.

There are other insect enemies of the rose besides those we have named, but they seldom do any great damage, and we think our readers are ready to cry, enough of bugs. We have given a list of remedies for controlling the ravages of the various pests which worry the rose, but it is with our roses as with ourselves, prevention is always better than cure. A pure atmosphere, cleanliness, by the free use of water, etc., healthy food, not necessarily that which is most nutritious. but that which can with certainty be assimilated or digested, are requirements common to our own lives and those of our roses, if they are to be healthy ones. A watchful care, with systematic attention to watering, syringing, etc., will often keep away insect enemies that would otherwise surely come to torment us. Many gardens in the suburbs of cities are supplied with water conducted from the mains of the water works in pipes; those who have such a supply of water in their grounds will find it an easy matter frequently to spray all the plants both from

beneath and above. The frequent and vigorous application of water is as hateful to the insects described as it is to fighting cats, and every one who grows roses (or cats) should be provided with that most useful instrument the garden syringe; it is a most valuable weapon of defence or of offence, whether used in keeping off the Rose Hopper or in dispersing the caterwauling midnight marauders that may come within range.

There are some insects which entomologists claim to be useful, as destroying those which are noxious; such are the larvæ of the garden beetle, rose beetle, ladybird and others, which feed upon aphides and caterpillars. I know nothing of the truth of this from personal observation, and do not see how their aid can be considered of any great value, since the solutions, etc., which are necessary to apply when noxious insects make their appearance, would be pretty certain to destroy friend and foe alike. I have much more confidence in the help to be obtained from the despised toad, and some of the birds, especially the ground-bird and sparrow; the toad will devour many of the worms and caterpillars, the birds will destroy not only these, but also the insects which infest the plants. The aid of the birds might be enlisted by daily scattering a few crumbs among the plants; when they have consumed the crumbs they will naturally turn their attention to the insects at hand, and thus repay their benefactors.

VIII.

PROPAGATION.



HERE are four methods used in propagating roses—by cuttings, by budding, by grafting, by layering; in importance they rank in

the order named, and in this order we will briefly consider them.

Although the principles which govern the art of propagation are the same the world over, it will be found that rosarians differ widely in working out details; thus, in the production of roses from cuttings, we, in America, are as much more successful than our European brethren as they excel us in the production of budded and grafted plants.

By CUTTINGS.—There is no doubt but that plants grown from cuttings are the most useful for general purposes, and the greater number of our choice varieties can be grown in this way without difficulty; but there are some beautiful kinds, like Baroness Rothschild, which root with great difficulty; these sorts can only be profitably grown by budding or grafting. Cuttings can be made at any time of the year. The old ideas that the wood must be cut at a joint or with a heel, and that it is essential they should be placed in bottom heat, have been thoroughly exploded. The most successful propagation made by cuttings, for the largest number of kinds, is made during the late winter months from strong plants one or two years old that have been grown in open ground, potted in the month of November; or from plants which have been grown in pots for one year, or planted out under glass. Cuttings of all kinds which root freely, like General Jacqueminot, Victor Verdier, etc., can be made from one eye only, and cut between the joints just as well as after the old fashion of cutting to a heel, and with three or more eyes-an unnecessary and wasteful process. All of the large commercial establishments in this country do most of their rose propagation in the months of January, February, and March; the cuttings are made to one eye and dibbled in beds of sand, or in some cases are placed in pots of sand and these pots plunged in beds of sand; underneath the staging which supports the cuttings run hotwater pipes or flues; these are commonly

boarded-in to secure bottom heat, and this I believe to be the best method. Some rose growers make no attempt at confining the pipes or flues, and produce excellent plants without resorting to bottom heat, but it is a slower process, and there is a greater percentage of cuttings which fail to root. Advocates of this system claim that they secure healthier, stronger plants in the end than they would by the use of bottom heat. There is no doubt that plants propagated in a closely confined house in a high temperature are apt to turn out of weak constitution, but we believe the best results follow where plants are propagated in a bed at a temperature of about 70 degrees, with the temperature of the house a few degrees less. However, these matters concern nurserymen and florists more than amateurs, for this class does not care to put in operation anything that requires much expense. When but few cuttings are desired they can be placed in pots and will take root in four or five weeks after insertion, grown in any ordinary conservatory or greenhouse. After the cuttings have taken root they should be potted in pots not exceeding two and a half inches in diameter. Certain kinds of roses take root without difficulty, others are so stubborn that the amateur would do well not to attempt their propagation until he has proved himself an adept in rose culture. The sorts most difficult to root are the various varieties of Moss, most of the summer roses, and certain varieties of Hybrid Remontants, belonging to the Jules Margottin, Baronne Prevost, and Baroness Rothschild families. (See chapter on Typical Roses.) All of the Tea and Monthly Roses, with very few exceptions, root and grow freely from cuttings.

Besides using green wood, some propagators make cuttings from hard wood—that is, shoots thoroughly ripened, taken in the autumn. Manetti cuttings are always made from wood taken in autumn, and the various varieties of Prairie Roses are often grown in this way. In some establishments large quantities of cuttings are made during the summer months and grown in hotbeds; the plants produced are salable in the autumn and are largely used by florists. In selecting stock plants from which to propagate, care should be had that only those be chosen which are vigorous and healthy, otherwise a sickly or weak progeny will result.

By Budding.—This is an important method, second only to propagation by cuttings.

The chief disadvantages are these: first, it is more expensive. The stocks are to be purchased and cared for (they cannot often be profitably grown in our hot climate), and it will be found that the labor of budding, suckering, cutting back stocks, etc., will make the operation far more costly than growing plants from cuttings. Budded plants are not desirable for inexperienced amateurs, since novices do not detect the suckers which, not infrequently, come up from the roots and if not cut away ultimately choke the plant. A third objection is found in the fact that budded plants are more frequently killed by severe winters than plants on own roots.

On the other hand, by budding we are enabled to grow varieties which are so difficult to root from cuttings, that their propagation would be discontinued by all large rose-growers were it not for this method. Varieties like Baroness Rothschild, Mabel Morrison, Marquise de Castellane, Madame Boll, Marguérite de St. Amande, etc., are as yet almost indispensable, but no nurseryman would long grow them from cuttings. There is another class of roses often advantageously grown by budding, these are varieties of moderate growth like A. K. Williams, Horace

Vernet, Madame Victor Verdier, Mademoiselle Eugénie Verdier, Marie Baumann, Xavier Olibo, etc. All these kinds are invigorated by being worked on some strong stock, like the Manetti. A third advantage of budded roses is for use as stock plants, and also for forcing. Budded plants of many kinds (not the Jacqueminot type) can be taken up in October or November, and with ordinary treatment will give as fine a crop of flowers as plants of the same varieties which have been grown all summer in pots at much more expense and labor.

I would not advise any reader to purchase budded roses who cannot tell, by the wood, the difference between Persian Yellow and General Jacqueminot, between Marie Baumann and Salet—indeed amateurs who cannot do this do not deserve to have roses at all, for they would not be able to distinguish between the shoots of the Manetti suckers and their Louis Van Houtte or Victor Verdier (although the Manetti is most distinct from all other roses).

Many kinds of stocks have been tried on which to bud roses, as the Brier, the Grifferaie, etc., but for general use in this country we very greatly prefer the Manetti. The stocks are planted in nursery rows about three feet between the rows, and six or eight inches apart; in July and August the buds are inserted; the lower the buds can be put in the better, as the liability to send up suckers is thereby greatly diminished, and opportunity is also afforded the plant of being ultimately established on its own roots.

PROPAGATION BY GRAFTING.—This is a profitable mode to pursue when done in winter under glass, using plants of Manetti or Brier grown in pots for the purpose. Grafting roses on the root cannot be made profitable. as such a large percentage fail to grow. Stock grafting is carried on in England and elsewhere with great success, and although the plants are not so desirable (owing to the graft being of necessity some distance above the roots) as those propagated by the other methods, it affords nurserymen an opportunity of more quickly securing a stock of new sorts, and also is advantageous as an aid in producing more vigorous plants of such varieties as Niphetos, than can possibly be obtained from cuttings.

Propagation by Layering was once practised to considerable extent, but it is a slow method, and is now but little used. Good plants can be obtained in this way of Persian Yellow and some other varieties which do

not strike from cuttings, and it is the only method by which certain kinds can be produced on their own roots.

Besides the methods spoken of, roses are also produced from seed, but this is only done where it is purposed to secure stocks, as seedling Briers, or where it is the aim to obtain new varieties.

·IX.

EXHIBITING ROSES.

NTIL recently little attention has, in this country, been given to a careful exhibition of roses, but of late years a decided interest has

been taken in the matter, and very creditable displays are now made in Boston and New York. The Massachusetts Horticultural Society has done a great deal to encourage exhibits of cut-roses, and the numerous boxes of splendid flowers to be seen at Boston every June attract admirers from all parts of the land. Much has been written and said for and against the exhibition of cut-roses in boxes. Objectors to the system claim that wrong impressions are given to the public; amateurs see beautiful flowers of a certain variety, and are thereby led to purchase and attempt to grow plants of it, only to discover that they don't grow; the variety being of feeble constitution and requiring skilful treatment, lives but a dismal life at their hands, and it is finally discarded as worthless; or it may be, the sort in question proves to be a kind that gives a few good blooms in June and plenty of shoots and leaves the rest of the year, but nothing else. Wrong impressions are doubtless often received at these exhibits, for to gain by observation a correct impression of the general qualities of any variety it must be seen at different times, growing in the garden or nursery row in quantity. On the other hand, these exhibitions certainly make prominent the more beautiful roses, and as we are first attracted to a rose by the richness or delicacy of its color, and the symmetry of its form, we have placed before us for easy comparison the highest types of beauty to be found in the rose family; and although from seeing individual flowers we learn nothing of the character of varieties, as respects profusion and continuity of bloom, or vigor and healthfulness of growth, we, nevertheless, can be assured that those kinds which appear frequently and in great perfection in different boxes are kinds which will certainly be useful ones for general cultivation. Varieties, particularly those not of recent origin, which now and then sparsely appear in great beauty, are not to be trusted on prima-facie evidence.

The warning, "trust her not, she's fooling thee," should be borne in mind in the examination of the beauties of these erratic stars, and no one should commit himself in allegiance to them without some knowledge of their actual worth.

The following rule of the Massachusetts Horticultural Society referring to boxes for exhibition is given for the information of those interested in the matter. All roses competing for prizes, except those for the general display, must be exhibited in boxes of the dimensions named below:

Length.				Breadth.			H	Height.				
For	24	roses,	4	ft.		r ft.	6 in.	Back of	box,	6 in.	; front,	4 in.
46	12	roses,	2	ft. 2	in.	r ft. 6	5 in.	**		6 in.	; "	4 in.
44	6	roses,	I	ft. 6	in.	1 ft. 6	in.	66		6 in.	; "	4 in.
6.6	3	roses,	I	ft.		ı ft. 6	5 in.			6 in.	; "	4 in.

One of the most important points connected with showing roses is the proper arrangement as regards size and colors of the flowers.

"Cut first of all your grandest blooms, because no Mede nor Persian ever made law more unalterable than this: The largest roses must be placed at the back, the smallest in the front, and the intermediate in the middle of your boxes. They become by this arrangement so gradually, beautifully less, that the

disparity of size is imperceptible. Transgress this rule, and the result will be disastrous, ludicrous, as when some huge London carriage-horse is put in harness with the paternal cob, or as when some small but ambitious dancer runs round and round the tallest girl at the ball in the gyrations of the mazy waltz. . . . The arrangement of roses with regard to their color has not been studied as it deserves to be. The amateur with more leisure than the man of business for the study of the beautiful, and for the most effective display of his fewer flowers, ought to excel, but, as a rule, does not. His roses are very rarely made the most of in this respect, but are frequently marred and spoiled, the colors clashing and contending with each other instead of combining against their common adversary. It is told of a highly sensitive dame whose silly pride was in dress, that she went into hysterics before a large party when her great rival in millinery came and sat upon the ottoman beside her in a grand garment of the same color as her own, but of a much more brilliant and effective dye; and I have seen many a rose which would weep, if it could, aromatic rosewater, subdued by a like despair. Once upon a time six pretty sisters lived at home to-

gether always. In looks, in figure, in voice, gait, and apparel, they exactly resembled each other. Young gentlemen seeing them apart, fell madly in love, as young gentlemen ought to do; but on going to the house and . being introduced to the family they were bewildered by the exact similitude, didn't know which they had come to see, couldn't think of proposing at random, made blunders, apologies, retreats. It seemed as though all these charming flowers would be left to wither on the virgin thorn, when one of them was permitted to leave her home upon a visit to a distant friend. She returned in six weeks bien fiancle, and six months after was a bride. The rest followed her example. So it is that six scarlet roses or six pink roses in close proximity perplex the spectator and depreciate each other by their monotonous identity; isolated or contrasted we admire them heartily." *

Roses should be cut and placed in their proper positions for exhibition in the same boxes in which they are to be shown previous to the time appointed for exhibition. Some favored individuals who live close by the place where the show is held find it practicable to bring the flowers in baskets or trays,

^{* &}quot;A Book about Roses," Chapter XIV., S. Reynolds Hole.

and arrange them in their proper positions in the room where they are to be displayed two or three hours before the time appointed for the judges to go their round. When roses come from any distance they should be carefully arranged at home, and then when the boxes arrive at destination any flowers that suffered in transit can be replaced from the supply put up for this purpose. The day being cloudy and cool, roses may be cut at any time, but it is prudent to rely on the early morning hours as the best time for the purpose. An experience in cutting roses at sunrise, on a fresh cool morning in June, is an experience worth living for. A careful examination of one's treasures the day before the flowers are to be cut will enable one to estimate the strength on hand and decide finally as to what classes shall be contended for. All the details should be considered in advance, and the writing of cards, giving of names of varieties, providing green moss, etc., not left till the last moment. teurs who do not comprehend the manner of construction of exhibition boxes and the way the flowers are to be arranged in them, would do well to apply to the Secretary of the Massachusetts Horticultural Society, Horticultural Hall, Boston, who will have sent to them a box from which they can pattern, or all the boxes required will be sent; he will also furnish the schedule of prizes offered by the society. I mention this society because its exhibits are of higher character than any others, both as regards the quality of the flowers displayed and the general arrangements and facilities afforded. Boston excels in the exhibit of Hybrid Remontants, while New York stands first in staging fine Teas, but at both places displays are made that should have the encouragement of all who are interested in the improvement of our rose exhibitions.

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X.

ROSES UNDER GLASS. BY J. N. MAY.



HERE are a number of roses which do not attain perfection when grown in open air, and others that do not thrive at all except under

glass. For these it is necessary to provide a rose-house, which, besides enabling us to grow satisfactorily the delicate kinds, will supply us with flowers during the winter months of any more robust sorts we choose to grow. If it is desired to grow more than one family of roses, two or more houses are desirable, so that they can be treated to suit their several requirements. Tea Roses need one treatment, Hybrid Perpetuals and nearly all hardy roses require another somewhat different. I will first give the treatment requisite for insuring the best results with Tea Roses, commencing with their propagation.

CUTTINGS.—Use young, vigorous wood taken from healthy plants; the wood is in the right condition when the flower buds are

well developed. Take cuttings with two or three leaf stalks, remove the lower one and make a smooth cut, if possible just beneath where the leaf stalk was removed; with the back of the knife knock off all thorns from the wood and insert the cutting in your bed of sand; press around the cutting firmly, and water thoroughly with tepid water. After this process the cuttings should never be allowed to get dry, the sand must be kept moist by frequent syringing. If the temperature of the house is kept at from fifty to fiftyfive degrees at night and from sixty to seventy during the day, the cuttings will be well rooted in twenty-eight or thirty days after the day they are put in.

To know when they are in the right condition to pot off: with a thin, flat stick, carefully pry a few out of the sand; if they have made roots one-half inch long, they can be potted. The soil must be prepared by taking three parts good loam, one part sand, one part well-rotted cow-manure; these are to be thoroughly mixed and placed in a warm position. Use two-and-a-half-inch pots, press about the cuttings firmly; when potted place near the glass. Do not water heavily for a few days; until they begin to grow freely a light syringing, just enough to keep the

plants from becoming dry, is all that is necessary.

In about three weeks, the plants, if properly treated, will be ready to shift into four or five-inch pots. The same care used in the first potting must be observed in this. By watering the plants an hour or so before shifting, they will leave the pot with a ball of earth, and thus but slight check or disturbance is given to the growth of the plants. The pots should always be filled to the amount of one-fourth or one-fifth their depth with broken pieces of pots, or similar substances, in order to secure perfect drainage. After four or five weeks' growth the plants should be ready for the second shift, when six or seven-inch pots will be needed. The same soil should be used, but with the addition of one shovelful of pure ground bone to every forty shovels of soil; this must be well mixed. In shifting plants always use clean pots.

The best time to make cuttings is during the month of January; if you cannot obtain good cuttings of your own, order young plants from some good grower, to be delivered to you some time in February or March. These plants will probably be from two-and-a-half-inch pots and will be ready for their

first shift. Do not order the plants sent by mail, for under no circumstances will plants by mail ever be as good as those sent by express; for the reason that the soil is shaken off the roots when prepared for mailing, and the roots get damaged in transit. I would rather pay double the price for every plant I wanted and have them come by express than have them mailed at one-half the price.

After the sun causes the temperature of the house to rise during the day, as during mild, clear days in February, March, and April, careful attention must be paid to ventilation; air is to be given from the ridge, never from the front, until after the first of June, or the plants will suffer from mildew, etc. The Aphis must be kept off by tobacco fumigation; never allow the plants to become in the least infested. Prevent mildew by dusting flowers of sulphur on the pipes or flues, which should previously be moistened with water.

The plants will be ready for removal from the houses to open air about the first of June. The position chosen for plunging the roses must not be one exposed to sweeping winds or strong draughts of air. The pots may be plunged in a bed of coal-ashes, or any similar

material, about four inches in depth. The plants should be syringed once a day to keep them healthy; if the surface of the soil becomes green carefully remove it and fill up with fresh soil. When the pots are filled with roots we give the final shift for the season, using eight, nine, or ten-inch pots according to the size and strength of the plant. If it is desired to grow the plants on benches, out of pots, this last shift is not used. For this purpose the side benches should not exceed three feet six inches in width, and next the front should be twelve or fourteen inches from the glass. The benches must be so made as to hold five or six inches of soil, and the bottom boards laid one-half inch apart, so as to secure good drainage; over the cracks are placed thin sods, the grass side downward; these prevent the soil from being washed away by watering. The first bench being nearer the glass than the others should be used for the more delicate growing kinds, like Niphetos, etc. If the house be not pitched too high, the middle bench can be made level, like the front one, using the back portion for the taller growing sorts. The third bench, if there be one, must be raised so as to bring the plants about the same distance from the glass as does the first one.

The plants should be placed about sixteen or eighteen inches apart, each way, and should be in position in June or July. When well established and growing freely, give them a mulching of good rotten manure mixed with bone-dust; one shovel bone-dust to twenty of manure is a good proportion. The amount of water to be given will vary with the weather; during clear and hot days they should have a vigorous spraying, given by a syringe or from the hose, twice a day. When it is cloudy or cool they may need but a slight sprinkling once a day. The soil should never be allowed to become dry so as to show dust, or to be saturated with water; either extreme is dangerous to the health of the plants. From the time of planting out, say the last of June, until the middle of September, or until the nights become chilly, all the ventilators should be constantly left wide open; when cool weather begins they must be closed at night, but air should always be given from the ridge during the day, unless the weather be adverse. It should be the endeavor to keep the temperature fifty-five degrees at night, and sixty-five to eighty degrees during the day. If these instructions are carefully heeded, there will be an abundant supply of fine roses all through the season, from the first of October to the end of the following June, when the same process will be repeated. Although the old plants can be used for a second season, I do not advocate it; the extra expense and trouble of renewing the beds of soil and the plants every season, I have proved by experience is more than compensated for by the better and more constant supply of fine blooms.

If it is decided to grow the plants in pots all the season a somewhat different treatment is to be followed. After the final shift the plants are again placed on the bed of ashes, where they are constantly to be watched and cared for, the dead leaves picked off and the surface of the soil occasionally stirred, care being taken not to disturb the young roots. During hot weather it is best to water in the evening, but when the nights become cool the morning is a better time. By the middle of August we slightly withhold watering, so that the plants may obtain a hardy constitution and a partial rest of a few weeks. The greenhouses should be thoroughly cleaned, ready to receive the plants by the middle of September. After the plants are housed they should be mulched with thoroughly rotted cow-manure, fifteen parts, mixed with one part pure ground bone.

As much is to be placed on each pot as will remain and not wash off. The soil is to be examined to see that it does not get too wet. In ten or fifteen days after the plants are placed in the house they will begin to show plenty of blooms, and will continue to push forth buds all the winter. By the first of December, if the plants are doing well, they should have a little weak liquid manure. Place one-half bushel of fresh cow-manure in a barrel containing fifty gallons of water; stir it thoroughly and let it stand two days before using. The plants may be allowed to become a little dry before the liquid is applied; it can be used once a week. Chicken manure is also excellent, applied in the same way, but as it is stronger, about twice the amount of water should be used. neither of these fertilizers can be had. Peruvian guano, two pounds to fifty gallons of water, may be substituted. A peck of soot tied in a coarse bag and allowed to stand in water for several hours, is also a useful stimulant. To destroy worms and keep the soil sweet a dose of lime-water may oceasionally be given with excellent results. One peck of fresh lime is placed in a barrel, and enough water added to it to slake it, as a mason would do in making mortar. When the lime

has been slaked, add fifty gallons of water and then let it stand until clear.

The mulching about the plants may be renewed during the winter, and toward spring the liquid manure can be given more frequently than at the first. At the end of the season, say the first week in June, the plants should be removed from the greenhouse to the plunging ground; it is desirable now to plunge the pots up to the rim, as this keeps the plants somewhat moist, and much less water is required. The supply of water should be gradually lessened, that the growth may be checked and the plants obtain a few weeks' rest; in doing this, care must be had that the young wood does not shrivel. After a rest of about five weeks, the plants are to be shifted into pots one or two sizes larger. By the middle of August it will be time to cut away all weak wood, reserving the young and strong shoots; these should be tied to neat stakes. As the plants show signs of forming new growth, a little more water must be given; they should be housed by the middle of September and treated the same way as in the previous year.

Hybrid Perpetual Roses must be managed differently from the Teas. They are propagated and grown in the same way until the first of September, when they should be sorted, and all those having the strongest and ripest wood placed by themselves. Water is to be gradually withheld until growth stops, this will be in two or three weeks; the pots are then to be laid on their sides, on a bed of coal-ashes; if the weather is hot and dry cover the pots with rough grass, hay, or any light material; in this condition they can, if desired, remain several weeks, provided they are not allowed to get hard frozen.

Presuming that the blooms are required for New Year's, the plants should be thoroughly ripened by the 25th of September, and must be pruned about that time; in doing this remove entirely all weak shoots and shorten the strong ones to within a few buds of the base, cutting back to a plump eye. Stand the pots up and water them a little at a time till the balls are soaked through; on warm days, syringe the tops frequently. Should the nights get frosty place the plants in a pit or cold frame, covering with sashes. If no such place be ready the plants must be removed to the greenhouse; in any event they will need to go there when the eyes have well started. Be sure to give plenty of air on all mild days,

and syringe two or three times a day, according to the heat of the sun. Do not allow the temperature to exceed forty degrees at night for the first three weeks: after that it can be gradually increased to forty-five degrees. In early November, special care must be taken not to overwater, at the same time the plants must never be allowed to get dry from the time the plants start into growth until the blooms are cut. The temperature will be kept at forty-five degrees for the night, or a very little above that point, until the flower buds form: so soon as the buds are well developed the night temperature can be gradually increased to fifty-five degrees. So soon as it is seen that the flower buds are forming, liquid manure may be given, as directed for Tea Roses.

If the flowers are wanted any earlier than January the plants must be ripened correspondingly early. It generally takes fourteen weeks from the time of starting to bring Hybrid Perpetual Roses into bloom. The location, soil, etc., all exert influences in this matter, and the operator must adapt himself to the circumstances of the case. Certainly there is no royal road to success in forcing roses; it is only by hard work, patient and careful watching, night and day, that success

can be obtained. When the crop of flowers is cut the plants can be treated about the same as the Teas, excepting they will not need quite so much water for a few weeks until they begin to grow freely again; then encouragement should be given them, for the finer the growth now the better will be the produce the next season. At the beginning of June they can be taken out of doors and receive the same treatment as young plants.

Varieties suitable for forcing are numerous (see Chapter XI. for list of varieties), perhaps the best dark ones for very early work are General Jacqueminot and Fisher Holmes. Varieties of Tea Roses suitable for forcing are almost innumerable, and every grower has his favorites; among the newer sorts some of the Hybrid Teas will certainly rank among the first.

For this chapter readers are indebted to Mr. J. N. May, of Summit, N. J., a practical cultivator, one of the most successful rosarians who grow flowers for the New York market. Roses under glass are nowhere brought to such perfection as in the neighborhood of Summit and Madison, New Jersey. In the English rose exhibitions are yet to be seen

the finest specimens of hardy roses, but to see the most beautiful blooms of Tea Roses that the world produces we must go to New Jersey; this chapter, from one of the adepts, will therefore be of great practical value to all who are interested in growing roses through the winter months.

XI.

VARIETIES BEST ADAPTED FOR SPECIAL PURPOSES.

The kinds marked with an asterisk (*) should be first chosen.



OR Pegging-down and Bedding.—
For this purpose monthly roses
are the best, and in selecting suitable varieties, several necessary

qualities must be considered. When we plant roses in isolated positions we often do so having regard to some special features which, by themselves, would not make the varieties of value for massing together. Thus, Maréchal Niel and Niphetos are not desirable kinds, though they are the finest roses of their color. The requisites for a good bedding rose are, freedom of bloom, healthy habit of growth, and pure, steadfast color. Symmetry of form, fragrance, and fulness of flower should also be taken into consideration.

We commend the following:

*Agrippina, *Apolline, Edward Désfosses, *George Peabody, *Hermosa, Queen of Bourbons, *Malmaison, Madame Caroline Kuster, Pumila, Bougère, Catherine Mermet, Countess Riza du Parc, General Tartas, *Gérard Desbois, *Homer, Jean Pernet, *La Princesse Véra, Madame de Vatry, *Madame Lambard, Marie Ducher, Marie Guillot, *Marie Van Houtte, *Monsieur Furtado, *Perle des Jardins, Rubens, *Sombreuil, Souvenir d'un Ami, Triomphe de Luxembourg, *La France, Michael Saunders, Paquerette, Soupert-et-Notting (Moss), Coquette des Alpes, *Eliza Boelle, Madame Auguste Perrin.

The Hybrid Remontants are not quite so useful for bedding roses as those above named, since they are not continuously in bloom, but they are very beautiful massed together and are capable of producing great effects. All of these are desirable:

Abel Grand, *Alfred Colomb, Anne de Diesbach, Annie Wood, Baronne Prévost, Baroness Rothschild, Boieldieu, *Countess of Serenye, Charles Lefebvre, Charles Margottin, Countess of Oxford, *Eugénie Verdier, *Fisher Holmes, *François Michelon, Gabriel Tournier, General Jacqueminot,

Hippolyte Jamain, *John Hopper, La Reine, La Rosière, Louis Van Houtte, Mabel Morrison, Madame Charles Wood, Madame V. Verdier, *Marguérite de St. Amand, *Marie Baumann, Paul Neyron, Pierre Notting, *Rev. J. B. M. Camm, Victor Verdier.

For Forcing.—We need for this purpose varieties that will flower freely and that are of high finish; only the most beautiful should be grown.

Among Monthly Roses the most desirable are: * Agrippina, Douglass, Souvenir de la Malmaison, Cloth of Gold, Maréchal Neil. Marie Berton, Bon Silène, *Catherine Mermet (not very free, but most beautiful), *Cornelia Cook (same attributes as Mermet), Homer, Innocente Pirola, *Isabella Sprunt, Jean Pernet, *Madame Bravy, *Madame de Vatry, Madame Lambard, *Marie Guillot, *Marie Van Houtte, Monsieur Furtado, Niphetos, Odorata, *Perle des Jardins, *Rubens, Safrano, Souvenir d'un Ami, Triomphe de Luxembourg, Beauty of Stapleford, Captain Christy, Duke of Connaught, La France, Madame A. Bernaix, Mademoiselle B. Violet, Nancy Lee, Viscountess Falmouth, Soupertet-Notting (Moss), *Eliza Boelle, Madame Noman.

Among Hybrid Remontants choose from

Abel Carrière, *A. Colomb, Anne de Diesbach, *Baroness Rothschild, Charles Lefebvre, Countess Cécile, *Countess of Serenye, Countess of Oxford, Etienne Levet, *Eugénie Verdier, *Fisher Holmes, François Michelon, General Jacqueminot, H. Jamain, Jean Liabaud, *John Hopper, Louis Van Houtte, Mabel Morrison, La Rosière, *Marguerite de St. Amande, Marie Baumann, Paul Neyron, Pierre Notting, *Rev. J. B. M. Camm, V. Verdier.

CLIMBING ROSES FOR CONSERVATORY.— Aimée Vibert Scandens, Banksia White, Banksia Yellow, *Céline Forrestier, Claire Carnot, Cloth of Gold, *Lamarque, Maréchal Niel, *Solfaterre, Belle Lyonnaise, *Gloire de Dijon, Madame Bérard, *Marie Berton, Reine Marie Henriette.

HARDY ROSES, THAT ARE FREE AUTUMNAL SORTS.—Gloire de Dijon, *La France, Viscountess Falmouth, Salet, Soupert-et-Notting. All the Hybrid Noisettes. Abel Grand, *Alfred Colomb, Antoine Verdier, Annie Wood, Baronne Prévost, *Baroness Rothschild, *Boieldieu, Caroline de Sansal, *Countess of Serenye, Etienne Levet, Eugénie Verdier, *François Michelon, Gabriel Tournier, General Washington, Hippolyte Jamain, Horace Vernet, John Hopper, Jules Margot-

tin, La Reine, Louis Van Houtte, Mabel Morrison, Madame Charles Wood, *Marguérite de St. Amand, Marie Baumann, Monsieur Noman, Paul Neyron, Princess Charlotte, *Rev. J. B. M. Camm, Victor Verdier. These are not all perfectly hardy; for list of such kinds see below.

HIGHLY SCENTED ROSES.—With but few exceptions all Moss Roses. Blanchefleur, Centifolia, Madame Hardy, *Maréchal Niel, Aline Sisley, *Bon Silène, Catherine Mermet, Countess Riza du Parc, *Devoniensis, Jules Finger, *Madame Bravy, Madame F. Janin, Marie Van Houtte, *Odorata, Rubens, Souvenir d'un Ami, *Duchess of Connaught, Hon. George Bancroft, *La France, *Nancy Lee, *Viscountess Falmouth, *Soupert-et-Notting, *Alfred Colomb, Baronne Prévost, Bessie Johnson, Fisher Holmes, General Jacqueminot, Horace Vernet, Louis Van Houtte, Mme. Chirard, *Madame Victor Verdier, Marie Baumann, Marie Rady, Maurice Bernardin, Pierre Notting, Prince de Porcia, Oueen of Waltham, *Rev. J. B. M. Camm, Xavier Olibo.

THE MOST HARDY ROSES.—Abel Grand, Anne de Diesbach, Baron de Bonstetten, *Baronne Prévost, Baroness Rothschild, Boieldieu, Caroline de Sansal, Charles Margottin, Countess of Serenye, Edward Morren, François Michelon, General Jacqueminot, Jules Margottin, *La Reine, Mabel Morrison, Madame Boll, Madame Joly, Marchioness of Exeter, Marguérite de St. Amande, Marquise de Castellane, Maurice Bernardin, Rev. J. B. M. Camm. All summer roses, with scarce any exception, are hardy, more so than any of the Hybrid Remontants. The most hardy of the Monthly Roses are Apolline, Edward Désfosses, Hermosa, Louise Odier, Aimée Vibert, Caroline Marniesse, Gloire de Dijon, Reine Marie Henriette, Bougère, Gérard Desbois, Homer, Madame de Vatry, Marie Ducher, Sombreuil.

THE MOST BEAUTIFUL ROSES, OR THOSE SUITED FOR EXHIBITION.—Souvenir de la Malmaison, Cloth of Gold, *Maréchal Niel, Madame Bérard, *Marie Berton, *Catherine Mermet, *Cornelia Cook, *Homer, *Madame Bravy, *Marie Guillot, Marie Van Houtte, Monsieur Furtado, Niphetos, Perle des Jardins, *Rubens, Souvenir d'un Ami, *Captain Christy, *La France, Madame Alexander Bernaix, Princess Lousie Victoria, *Eliza Boelle, *Madame Noman, A. Geoffroy St. Hilaire, Abel Carrière, *A. Colomb, A. K. Williams, Baron de Bonstetten, *Baroness Rothschild, *Charles Lefebvre, Charles Mar-

gottin, Countess Cécile, Countess of Serenye, Edward Morren, Egeria, *Eugénie Verdier, *E. Y. Teas, Fisher Holmes, François Michelon, George Prince, Horace Vernet, *Jean Liabaud, John Hopper, Jules Margottin, La Rosière, *Louis Van Houtte, Mabel Morrison, *Madame Victor Verdier, Marguérite de St. Amand, *Marie Baumann, *Marie Rady, Marquise de Castellane, Maurice Bernardin, Monsieur Noman, Paul Neyron, *Pierre Notting, *Rev. J. B. M. Camm, Victor Verdier, *Xavier Olibo,

XII.

RAISERS OF THE BEST ROSES.



ITH the immense number of varieties produced and sent out each year, it would be well if we had some criterion which would en-

able us to select the probably meritorious sorts from the mass of kinds which are worthless. We have, as yet, no better guide than the reputation of the raisers; by comparing the best sorts of the different growers we can estimate with some exactness the value each grower has been to the world; judging from what we have received in the past, we can estimate, in a measure, the value of that proffered annually by the different raisers of new roses.

The best sorts of each raiser are given in the accompanying list, and are those kinds most generally grown the world over.

* These raisers are dead, or have retired from business, or are not likely to be heard from again.

The abbreviations used describing the classes are: A.-Austrian; B.-Bourbon: Beng.—Bengal; Cl. T.—Climbing Tea: D. -Damask; Hy. Cl.-Hybrid Climber; Hy. N.-Hybrid Noisette; H. R.-Hybrid Remontant; H. T .- Hybrid Tea; M .- Moss; N.-Noisette; P.-Prairie; P. M.-Perpetual Moss; Pol.—Polyantha; Prov.—Provence; T.—Tea.

*Baumann. France.	
Marie Baumann	1863
*Jean Béluze. Lyons, France.	
His first variety was sent out in 1840.	
Souvenir de la MalmaisonB.	1843
Leveson Gower"	1846
Henry Bennett. England.	
First variety issued in 1879.	
Beauty of Stapleford	1879
Duchess of Connaught "	1879
Duchess of Westminster "	1879
Duke of Connaught "	1879
Hon. George Bancroft"	1879
Jean Sisley "	1879
Michael Saunders "	1879
Nancy Lee "	1879
Pearl"	1879
Viscountess Falmouth "	1879

These were raised by other parties, but	were			
purchased and sent out by Bennett.				
Duchess of EdinburghH.R.	1874			
Egeria"	1878			
Lord Beaconsfield"	1878			
Mabel Morrison "	1878			
Madame Welche T.	1878			
*Daniel Boll. New York.				
Madame Boll (sent out by Boyeau) H.R.	1859			
*Boyeau. France.				
Solfaterre	1843			
Souvenir de Mons. BollH.R.	1866			
7. (4				
Broughton. (Amateur.) England.				
Mabel MorrisonH.R.	1878			
B. R. Cant. Colchester, England.				
	0			
Prince ArthurH.R.	1875			
Scipion Cochet. France.				
Souv. de la Reine d'AngleterreH.R.	1855			
Souv. de la Reme d'Angieteire	1055			
Anthony Cook. (Koch.) Baltimore, M	Id.			
Cornelia CookT.				
	00			
Cranston & Co. King's Acre, England.				
Climbing Jules Margottin	1875			
Sir Garnet Wolseley H.R.	1875			
Mrs. Jowitt "	1880			

Frederick Damaizin. Lyons, France.	
Introduced his first variety in 1857.	
Mademoiselle Rachel T.	1860
Madame Charles"	1864
Abel GrandH.R.	1865
Félix Généro"	1866
Madame Nachury "	1873
La Rosière"	1874
Davis. England.	
Penelope MayoH.R.	1878
* Desprez. France.	
Desprez	1838
Baronne PrévostH.R.	1842
Caroline de Sansal "	1849
D 7	
Ducher and Widow. Lyons, France.	
First variety sent out in 1852.	
Gloire de DucherH.R.	1865
Nardy Frères "	1865
Antoine Ducher "	1866
Marie Ducher	1868
DucherBeng.	1869
Coquette de Lyon T.	1870
Marie Van Houtte "	1871
Perle de Lyon "	1872
Comte de Sembui "	1874
Jean Ducher "	1874
Maréchal Robert "	1875
Triomphe de Milan "	1876
Madame Maurice Kuppenheim "	1877
Innocente Pirola"	1878

Madame Welche T.	1878
Jean Lorthois "	1879
Jules Finger "	1879
Madame Louis Henry N.	1879
Mademoiselle Cécile Brunner Pol.	1880
* Feast. Baltimore, Md.	
Anna Maria	1843
Baltimore Belle"	1843
Queen of Prairies	1843
	1043
* Fontaine père. Châtillon, France.	
Queen VictoriaH.R.	1850
Mme. Chas. Crapelet "	1859
Marie Rady "	1865
Charles Fontaine. Châtillon, France.	-0-0
Louis DoréH.R.	1878
Garçon. Rouen, France.	
Mme. Hippolyte Jamain	1871
Boieldieu"	1877
Gautreau. France.	-06-
Camille Bernardin	1865
Mme. de St. Pulgent	1872
J. M. Gonod. Lyons, France.	
Introduced his first variety in 1863.	
Achille GonodH.R.	1864
Mme. Louis Donadine "	1877
Mme. Anna de Besobrasoff "	1877
Mme. Eugène Chambeyran "	1878
Mile, Julie Dymonier "	1870

1874

Granger. General Washington......H.R. 1861 Maurice Bernardin..... 1861 Duke of Wellington..... 1864 Exposition de Brie..... 1865 Edward Morren..... 66 1868 * Guillot père. Lyons, France. Introduced his first variety in 1842. Duchesse de Thuringe..... B. 1847 Canary..... T. 1852 1854 Sénateur Vaisse..... 1850 T866 1867 1867 Countess of Oxford......H.R. 186a Eliza Boelle H.N. 1860 J. B. Guillot fils. Lyons, France. Introduced his first variety in 1858. Mme. Falcot..... 1858 Horace Vernet......H.R. 1866 Mme. Margottin..... 1866 La France......H.T. 1867 1869 Catherine Mermet..... 186g 1871 1871 Claire Carnot..... 1873

Aline Sisley.....

Marie Guillot T.	1874
PaquerettePol.	1875
Mme. Alex Bernaix	1877
Mme. Angèle Jacquier T.	1879
Pierre Guillot	1879
* Guinoiseau. France.	
Empereur de MarocH.R.	1858
* Hardy. Paris, France.	
Mme. HardyDam.	1832
Bon Silène. T.	1839
Triomphe de Luxembourg "	
* Harrison. (Amateur.) New York.	
Harrison's YellowA.	1830
* Jacotot. (Amateur.) France.	
Gloire de DijonCl.T.	1853
Hippolyte Jamain. Paris, France.	
Mme. BoutinH.R.	1861
Dupuy Jamain "	1868
Constantin Tretiakoff"	1877
Paul Jamain"	1878
* Knight. England.	
Princess Louise VictoriaH.Cl.	1872
François Lacharme. Lyons, France.	
Introduced his first variety in 1844.	
Victor VerdierH.R.	1852
SaletP.M.	1854
Pæonia H.R.	1855

Anne de DiesbachH.R.	1858
Charles Lefebvre "	1861
Mme. A. de RougemontH.N.	1862
Xavier OliboH.R.	1864
Alfred Colomb"	1865
Baronne de MaynardH.N.	1865
Coquette des Alpes "	1867
Boule de Neige "	1867
Louis Van HoutteH.R.	1860
Coquette des BlanchesH.N.	1871
Mme. Lacharme	1872
Captain ChristyH.T.	1873
Hippolyte JamainH.R.	1874
Countess of Serenye "	1874
Jean Soupert"	1875
Mme. Lambard T.	1877
Catherine Soupert	1879
Julius Finger	1879
* Laffay. Bellevue, France.	
Mme. Laffay	1830
William Jesse"	1840
Duchess of Sutherland"	1840
La Reine"	1844
Princess Adelaide M.	1845
Coupe d'Hébé	1045
Auguste MieH.R.	1851
Laneii. M.	1854
Capt. John Ingram	1856
Monsieur Furtado T.	1863
	2003
* Lansezeur. France.	
Triomphe de Rennes N.	1857

Thomas Laxton. Bedford, England.	
Annie Laxton	1869
Princess Louise "	1869
Empress of India "	1876
Emily Laxton "	1877
Marchioness of Exeter "	1877
Mrs. Laxton "	1878
Richard Laxton "	1878
Charles Darwin"	1879
Doctor Hogg"	1880
Mrs. Harry Turner "	1880
* Lécomte. France.	
Maréchal Vaillant	1861
Ledéchaux. France.	
Henri LedéchauxH.R.	1868
Madame Ferdinand Janin "	1875
Léon Renault "	1878
Antoine Levet. Lyons, France.	
Introduced his first variety in 1866.	
Mademoiselle Thérèse Levet H.R.	1866
Belle Lyonnaise	1869
Madame Trifle "	1869
Paul NeyronH.R.	1869
Madame BérardCl.T.	1870
Madame Jules Margottin T.	1871
François Michelon	1871
Madame François Janin T.	1872
Perle des Jardins "	1874
Antoine Mouton	1874

KATSEKS OF THE BEST ROSES.	143
Marie Berton	1875
Madame Etienne Levet	1878
Mademoiselle Brigitte Violet "	1878
Reine Marie Henriette	1878
Madame DucherH.R.	1879
François Levet "	1880
Lévêque & Son. Ivry, near Paris, Fran	ce.
Duc de RohanH.R.	1861
Emile Hausburgh "	1868
Dévienne Lamy "	1868
Richard Wallace "	1871
Madame Louise Lévêque "	1873
Avocat Duvivier "	1875
Princess Charlotte "	1877
Gaston Lévêque"	1878
Madame Chédane Guinoiseau T.	1880
Liabaud. Lyons, France.	
•	
Introduced his first variety in 1852.	
Madame Clémence JoigneauxH.R.	1861
Jean Cherpin"	1865
Marquise de Mortemart "	1868
Baron de Bonstetten "	1871
Jean Liabaud "	1875
Mademoiselle Emma Hall "	1876
Madame de Laboulaye "	1877
Madame Gabriel Luizet "	1878
Claude Bernard"	1878
* Marest. France.	
	-0
Comtesse Cécile de ChabrillantH.R.	1859

Margottin père. Paris, France.	
Louise Odier B.	1851
Alexandrine BachmetieffH.R.	1852
Jules Margottin "	1853
Triomphe de l'Exposition "	1855
Anne Alexieff"	1858
Charles Margottin "	1864
Charles Turner"	1869
Madame de Ridder "	1871
Triomphe de FranceH.R.	1875
Madame Jeanne Joubert B.	1877
Gloire de Bourg La ReineH.R.	1879
Margottin fils. Paris, France.	
Comte de MortemartH.R.	1880
Madame Isaac Pereire B.	1880
Moreau-Robert. Angers, France.	
Sombreuil T.	1851
Madame Edward OryP.M.	1854
Homer T.	1859
Rubens"	1859
Blanche Moreau M.	1880
Mottheau. France.	
	,
Comtesse de Choiseuil	1878
Nabonnand. Golfe Juan, France.	
Duchess of Edinburgh (sent out by	
Veitch)Hy.Beng.	1874
Cannes La Coquette	1877
La Princesse Véra T.	1878
Duchesse de Vallombrosa "	1879

* Nérard. France.	
Giant of BattlesH.R.	1846
Ower France	
Oger. France.	
Triomphe de BeautéH.R.	1853
Madame Pierre Oger B.	1878
Has sent out upward of 25 varieties, nor	ıe
being of first quality.	
Dayl & Can (Cooper Dayl) Chashunt I	Tan or
Paul & Son (George Paul). Cheshunt, I	
Lord Clyde	1863
Duke of Euliburgii	1868
Climbing victor verdier	1871
Cheshunt HybridH.T.	1872
S. Reynolds Hole	1872
The Shan	1874
Duke of Connaught	1875
Climbing Bessie Johnson	1878
John Bright	1878
Chimbing Edward Morren	1879
marquis of Sansbury	1879
Duke of Teck"	1880
Glory of Cheshunt "	1880
Wm. Paul & Son. Waltham Cross, En	ng.
Beauty of WalthamH.R.	1862
Lord Macaulay "	1863
Princess Beatrice"	1872
Peach Blossom"	1874
Queen of Waltham "	1875
Star of Waltham "	1875
Magna Charta"	1876

Queen Eleanor	1876
Rosy Morn "	1878
R. Dudley Baxter "	1879
Crown Prince"	1880
Masterpiece "	1880
•	
James Pentland. Baltimore, Md.	,
Doctor Kane N.	1856
George Peabody B.	1857
3	3,
J. Pernet. Lyons, France.	
Mademoiselle BonnaireH.N.	1850
Jean Pernet T.	1867
Baroness Rothschild	1867
Marquise de Castellane "	1860
Mme. Caroline Kuster N.	1873
Soupert-et-NottingP.M.	1874
Souvenir de Mme. Pernet T.	1875
Charles Rovolli"	1875
Wilhelm KœlleH.R.	1878
Ferdinand Chaffolte "	1879
* Joshua Pierce. Washington, D. C.	
Mrs. Hovey P.	1850
Triumphant "	1850
* Portemer.	
Introduced his first variety about 1837.	
William Griffith	1850
Lady StuartHy.Ch.	1852
Pierre Notting	1863

R. B. Postans. England.	
May QuennelH.R.	1878
Countess of Roseberry	1879
Duchess of Bedford"	1879
	• • •
* Pradel. France.	
Maréchal Niel	1864
* Rambeaux. France.	
Marie FingerH.R.	1873
Anne Marie de Montravel Pol.	1879
	.,
* Rousselet. France.	
General Jacqueminot	1853
J 1	00
* Sansal. France.	
Marguérite de St. AmandH.R.	1864
Joseph Schwartz. Lyons, France.	
Auguste RigotardH.R.	1871
André Dunand "	1871
Duchesse de Vallombrosa "	1875
Comtesse Riza du Parc T.	1876
Marquise Adèle de MurinaisH.R.	1876
A. K. Williams"	1877
Egeria"	1878
Jules Chrétien"	1878
Lord Beaconsfield"	1878
Madame Auguste PerrinH.N.	1878
Madame Oswald de Kerchove "	1879
Reine Maria Pia	1880

Rev. James Sprunt, D.D. Kenansville,	N. C.
James SpruntBeng.	1858
Isabella Sprunt T.	1865
)	
* Touvais. France.	
Duc de CazesH.R.	1860
Mme. Julie Daran"	1861
Centifolia Rosea"	1863
* Trouillard. Angers, France.	
Eugène Appert	1859
Mrs. Standish"	1860
Céline Forestier N.	1860
Charles Turner. Slough, England.	
John S. MillH.R.	1874
Royal Standard "	1874
Miss Hassard	1875
Rev. J. B. M. Camm "	1875
Oxonian"	1875
Mrs. Baker	1875
Dean of Windsor"	1879
Dr. Sewell"	1879
Harrison Weir	1879
	20/9
* Vanasche. France.	
Léopold PremierH.R.	1863
Chas. Verdier. Paris.	
Duchesse de CaylusH.R.	1864
Paul Verdier	1866

Eugène Verdier. Paris.	
Madame Chas. WoodH.R.	1861
Prince Camille de Rohan"	1861
Madame Victor Verdier"	1863
George Prince"	1864
Doctor Andry	1864
Fisher Holmes	1865
Prince de Portia"	1865
Annie Wood"	1866
Thomas Mills"	1873
E. Y. Teas	1874
Abel Carrière"	1875
Charles Baltet"	1877
Madame Alphonse Lavallée "	1878
Madame Eugène Verdier"	1878
Souvenir de Victor Verdier "	1878
Comtesse de Ludre"	1870
	19
* Victor Verdier. Paris.	
Introduced his first variety in 1828.	
DouglassBeng.	1848
ApollineBourb.	1848
Jacques Vigneron. Orleans, France	
Elizabeth Vigneron	1865
Glory of Waltham (sent out by W.	1005
Paul)	1865
	1005
* Vibert. Paris.	
Aimée Vibert	1828
Countess of Murinais M.	1843
BlanchefleurProv.	1846
Glory of Mosses M.	1852

Viennot. France.

Maréchal Vaillant......H.R. 1861

Ward. Ipswich, England.

The standing of the various rosarians, now in business, who have sent out two or more sorts of good repute, is here placed in order of merit.

- Lacharme. Victor Verdier, Alfred Colomb, Coquette des Alpes, Charles Lefebvre, are varieties of marked individuality, produced by him. He has sent out fewer poor or indifferent sorts than any other large grower. He raises few Teas.
- 2. Guillot fils. In La France and Catherine Mermet, he has given us new types of wondrous beauty. Horace Vernet, Eugénie Verdier, and Marie Guillot, are sorts scarcely less fine. He furnishes about equal numbers of Teas and Hybrid Remontants.
- 3. E. Verdier. Has sent out no Teas except Maréchal Niel, but many more hardy kinds than any other grower. Most of those which have any value are crimson sorts. While he has issued far too many

indifferent kinds, and so has injured his record, we cannot but be grateful to him for the lovely dark roses he has given us, like Prince Camille, Mme. Victor Verdier, and Fisher Holmes.

- 4. A. Levet. F. Michelon and Perle des Jardins are his greatest gains. He is profuse in his production of climbing Teas of the Dijon type.
- 5. Ducher. Strong in Teas.
- 6. Paul & Son (George Paul). Has given us some dark kinds of wondrous beauty, but they do not thrive in our extreme climate. Perhaps some of his newer ones will be better adapted to our requirements. We miss very much in not being able to grow well S. Reynolds Hole, etc.
- 7. Schwartz. A. K. Williams and Egeria are among the most beautiful roses, but lack a good constitution. Mesdames Auguste Perrin and Oswald de Kerchove are new types, valuable additions to the Hybrid Noisette family.
- 8. Wm. Paul & Son. Although this firm have sent out no roses of sensational beauty, they have given some that have been useful in their day.
- 9. Laxton. Those of his raising and Charles

Turner's are, so far, the most useful English roses for our climate.

- 10. Pernet. Baroness Rothschild and Soupert-et-Notting are his distinctive sorts.
- 11. Turner. A raiser with an active conscience. Would there were more!
- Margottin. His roses have at least been distinct.
- 13. Liabaud. In the contest for supremacy has brought out some *dark* horses that have some years won the race.
- 14. Bennett.
- 15. Moreau-Robert.
- 16. Damaizin.
- 17. Lévêque.
- 18. Granger.
- 19. Cranston & Co.
- 20. Postans.
- 21. Gonod.
- 22. Sprunt.
- 23. Nabonnand. This gentleman has sent out some seventy varieties, mostly Teas, but for some reason (is it lack of merit?) they have not taken well with the public.
- 24. Garçon.
- 25. Jamain.
- 26. Rambaux.
- 27. Gautreau.
- 28. Ledéchaux.

- 29. Charles Verdier.
- 30. Vigneron.
- 31. Margottin fils.
- 32. Oger. Last and least, is one of the oldest raisers who has sent out a large number of sorts, but the rose public, perhaps being prejudiced, have never seen merit in anything he has produced.

Lest this list of raisers may seem to have been too arbitrarily arranged, we subjoin a list gauged according to the number and standing of the varieties which represent them (the raisers), as given in the election of exhibition roses, held in England last summer. The result of this election was published in the Journal of Horticulture, October 6th, 1881, the best twelve varieties standing in the following order of merit: Marie Baumann, Alfred Colomb, Baroness Rothschild, Charles Lefebvre, Marquise de Castellane, Duke of Edinburgh, Louis Van Houtte, Maréchal Niel, Marie Rady, La France, A. K. Williams, Etienne Levet. The names of eighty-eight varieties are noted, and the total number of votes giving the several varieties of each raiser determine the relative standing of the raisers. The names of those rosarians now living, as gauged by this election, rank in the following order:

ı.	E. Verdier	2 ;	sort	s423	votes
2.	Lacharmeı	I	66	409	"
3.	Guillot fils	5	66	204	44
4.	Levet	4	46	146	**
5.	Paul & Son	4	66	140	"
6.	Pernet	2	66	132	44
7.	Schwartz	3	"		44
8.	W. Paul & Son.	4	44	101	44
9.	Granger	3	"	68	44
10.	Baumann	I	46	67	"
II.	Jamain	2	46	64	46
	Liabaud	2	66	63	46
13.	Lévêque	3	44	57	46
	m	3	"	43	"
15.	Laxton	3	66	40	"
_	Ducher	I	66	36	"
17.	Gautreau	I	44	34	"
•	Ward	I	"	34	"
19.	Cranston	T	46	28	"
20.	Rambaux	T	**	26	"
21.	Postans	ī	66	22	"
22.	Damaizin	ī	"	20	"
23.	Garçon	I	**	15	"
24.	Davis	1	"	II	66
25.	C. Fontaine	1	"	10	66
23.	o. I ontaine	•			

It is to be noted that Tea Roses, in the election, play an unimportant part, as in England they are mostly grown under glass,

and for exhibition purposes are only to be had in small quantities. Some voters did not consider the Teas at all, confining their votes to hardy varieties, doing this on account of the radical differences which exist between the two classes. This has an important bearing in estimating the comparative standing of the various growers; thus, Ducher's forte has been the production of fine Tea Roses, and this last list does not give him his just position. We must consider it therefore from the standpoint of hardy exhibition varieties; in doing this, we find an interesting impartial comparison. Seven raisers named in our list find no representation in the election list, these are Sprunt, Nabonnand, Ledéchaux, Charles Verdier, Vigneron, Margottin fils, and Oger. We believe our own list to represent more correctly the comparative merit of the various producers of new roses: but the latter, as has been said, is certainly impartial, and is the more gladly inserted, to show that we have no bias that influenced us in our arrangement.

XIII.

THE SEED PARENTS OF THE LEADING ROSES.



UR information, whenever possible, has been obtained from the raisers themselves; there may be some inaccuracies, but great pains have

been taken to make the list as comprehensive and correct as possible. It will be observed that General Jacqueminot, Jules Margottin, and Victor Verdier have been the most used as parent sorts. While we hope this list will be of general interest, it will, we are sure, be of value to those engaged in raising new varieties. Some few of the varieties are crosses from two known sorts, but only the female parent is given; this is the case with all the Hybrid Teas of Bennett; the full parentage of these kinds may be found in the catalogue of varieties. It must not be inferred that all the varieties that bear seed freely are included in this list; on the contrary, some of the most productive have no representation—such are Baron Chaurand,

Jean Cherpin, Dr. de Chalus, Thomas Mills; while Victor Verdier and Giant of Battles, which seem to seed freely in Lyons, France, rarely bring seed to perfection in Rochester.

Alba Rosea (Tea).—Beauty of Stapleford (Hy. Tea), Nancy Lee (Hy. Tea).

Anne de Diesbach.—Princess Marie Dolgorouky.

Annie Wood .- Edward Dufour.

Antoine Ducher.—Edward Pynaert, Ernest Prince, John Saul.

Baroness Rothschild.—Marie Louise Pernet. Baron de Bonstetten.—Jean Liabaud.

Beauty of Waltham.—John Stuart Mill, Masterpiece.

Catherine Mermet (Tea) .- Jules Finger.

Charles Lefebvre.—General Von Moltke, Glory of Cheshunt, Harrison Weir, Henry Bennett, Jean Soupert, Mme. Anna de Besobrasoff, Mrs. Harry Turner, Président Léon de St. Jean, Rev. W. H. Stomers, Souvenir du Dr. Jamain, W. Wilson Saunders.

Cloth of Gold (Noisette).—Isabella Gray, Mme. Miolan Carvalho.

Comtesse de la Barthe (Tea).—Countess Riza du Parc, Mme. Joseph Schwartz.

Countess of Oxford.—Dumnacus, Mme. Bruel.

Devoniensis (Tea).—Cornelia Koch, Madame Welche.

Duchess of Sutherland.—Elizabeth Vigneron, Princess M. of Cambridge, Thyra Hammerich.

Duchess of Edinburgh (Bengal or Tea).—Alphonse Karr.

Duke of Edinburgh.—Doctor Hooker, Duke of Teck, Robert Marnock, S. Reynolds Hole, Sultan of Zanzibar, The Shah.

General Jacqueminot.—Alfred Colomb, Alfred de Rougemont, André Leroy, Baron de Rothschild, Camille Bernardin, Charles Lefebvre, Duke of Edinburgh, Dupuy Jamain, Gloire de Santhenay, Horace Vernet, Le Rhône, Léopold Premier, Maurice Bernardin, Oriflamme de St. Louis, Prince Arthur, Richard Smith, Sénateur Vaisse, Triomphe des Beaux Arts, Xavier Olibo.

Giant of Battles.—Abbé Bramerel, Arthur de Sansal, Cardinal Patrizzi, Empereur de Maroc, Eugéne Appert, Evêque de Nîmes, Lord Raglan, Louis Chaix, Mrs. Standish, Vainqueur de Solferino.

Gloire de Dijon (Tea).—Antonia Decarli, Beauté de l'Europe, Belle Lyonnaise, Gloire de Bordeaux, Jean Lorthois, Mme. Bérard, Mme. Levet, Mme. Trifle, Marie Berton, Mathilde Lenærts, Miss May Paul, Reine Maria Pia, Stéphanie et Rodolphe.

John Hopper.-Ambrogio Maggi.

Jules Margottin.—Abel Grand, Achille Gonod, Berthe Baron, Boieldieu, Charles Margottin, Claude Bernard, Duchess of Vallombrosa, Edward Morren, Egeria, Emily Laxton, John Hopper, Madame Gabriel Luizet, Madame Lacharme, Marchioness of Exeter, Marguérite de St. Amande, Marquise de Mortemart, Monsieur Noman, Pæonia, Peach Blossom, Violette Bouyer.

La Reine.—Anne de Diesbach, Auguste Mie, François Michelon, Gloire de Vitry, Louise Peyronny, Marguérite Dombrain, Mère de St. Louis, Reine des Blanches, Reine du Midi, Souvenir de la Reine d'Angleterre, Ville de St. Denis.

Lamarque (Noisette).—Cloth of Gold, La Jonquille (Tea), Le Pactole, Solfaterre, Triomphe de Rennes.

Lion des Combats. - A. M. Ampère.

Louise Odier (Bourbon).—Catherine Guillot, Comtesse de Barbantanne, Modèle de Perfection.

Madame Boutin.-Madame Marthe d'Halloy.

Madame Charles Wood.—Guillaume Gillemont.

Madame de Tartas (Tea).—Baron Alexandre de Vrints, Marie Van Houtte.

Madame de St. Joseph (Tea).—Hon. George Bancroft (Hy. Tea).

Madame Falcot (Tea).—Madame Azélie Imbert, Madame Bernard, Mile. Blanche Durschmidt.

Madame Julie Daran.—Charles Darwin.

Madame Laffay.—Marquise A. de Murinais.

Madame Récamier.—Eliza Boelle, Madame
Noman.

Madame Victor Verdier—Comte de Flandres, Mrs. Laxton, Souvenir de Spa.

Madame Vidot .- Princess Louise.

Marguérite de St. Amande.—Miss Hassard. Marie Rady.—Mrs. Jowitt.

Ophirie (Noisette).—Duarte d'Oliveira, Ma Capucine, Souvenir de Paul Neyron.

Paul Neyron.—George Moreau, Ulrich Brunner.

President (Tea).—Duchess of Connaught, Duchess of Westminster, Duke of Connaught, Jean Sisley, Michael Saunders, Pearl, Viscountess Falmouth. These are all Hybrids, raised by Bennett.

Safrano (Tea).—Madame Charles, Madame Falcot, Safrano à fleur rouge.

Sénateur Vaisse.—Anicet Bourgeois, Madame Adelaide Cote.

Schmitt. Caroline Schmitt.

Souvenir de la Reine d'Angleterre.—Mdlle. Emma Hall, Monsieur Jules Monges.

Souvenir de la Reine des Belges.—Madame Crassy.

Triomphe des Beaux Arts.—Empress of India.

Triomphe de l'Exposition.—General Washington, Maréchal Forey, President Mas, Madame Jules Grévy.

Victor Verdier.—André Dunand, Captain Christy, Charles Verdier, Countess of Oxford, Etienne Levet, Helen Paul, Hippolyte Jamain, Julius Finger, Madame Dévert, Madame George Schwartz, Madame Marie Bianchi, Mademoiselle Eugénie Verdier, Madèmoiselle Marie Cointet, Marie Finger, Maxime de la Rocheterie, Mrs. Baker, Oxonian, Paul Neyron, President Thiers, Souvenir du President Porcher.

Yellow Tea .- Devoniensis.

XIV.

PERMANENT COLORS—TOO-MUCH-ALIKE ROSES.
HOW TO DISTINGUISH BETWEEN SIMILAR VARIETIES.



MONG the many desirable qualities which we should look for in our best roses, permanency of color is not the least important. I have

reference more particularly to the Remontant or Hybrid Perpetual varieties; but my remarks will also apply to the other classes, though perhaps in less degree. It has no doubt often been noticed how differently the various varieties of roses will impress us in different seasons; that is, a kind which excites our highest admiration one year may more or less disappoint us the next. This arises from various causes, but chief among them is the variation in color produced by different conditions of sunlight, heat, moisture, etc. To know what are the most permanent colors among the innumerable varieties found in the catalogues becomes, therefore,

a matter of considerable importance, enabling us to place in favored situations those sorts easily affected by these several conditions, and, if necessary, giving positions exposed to the direct rays of the sun to those varieties which have proved best able to endure them. The most severe ordeal which tries the color of a rose is an excess of moisture followed by a hot sun. Exposed to these conditions many of our choicest sorts, of which Charles Lefebyre and Countess of Oxford are notable examples, lose their pristine brilliancy or purity, and become lamentably faded and sullied. Others, like Louis Van Houtte and Marie Baumann, are under such circumstances much less injured, and though losing some of their original freshness still remain exceedingly attractive. Dark roses are, as a rule, the first to fade; their glory passes away very much sooner than is the case with the rose-colored varieties and those of light shades. Among the crimson sorts we have observed none which retains its color so well as Louis Van Houtte; this quality, combined with fine form, fragrance, and freedom of bloom, places it at the head of all crimsonmaroon roses. Varieties of somewhat lighter shade that rank high for permanency of color are, General Jacqueminot, Charles

Margottin, Marie Baumann, Alfred Colomb. Among the shades of rose that are most durable, we find Marquise de Castellane, Rev. J. B. M. Camm, Madame Louis Lévêque, Marguérite de St. Amand, Jules Margottin.

From the pink sorts we choose Eugénie Verdier, Egeria, Monsieur Noman, Baroness Rothschild, Captain Christy, Countess of Serenye.

Among roses that fade quickly when exposed to the adverse influences spoken of, are found many of our most beautiful varieties; by taking pains to place these in the most favored locations we can aid in retaining the natural shades, and thus greatly enhance the value of each kind. All of the Victor Verdier type, except the light ones like Eugénie Verdier; all of the Giant of Battles type, all of the Duke of Edinburgh type, all of the Charles Lefebvre family, Dr. Andry, Gloire de Ducher, Madame de Ridder, André Dunand, Camille Bernardin, Jean Cherpin, Madame Nachury, Emilie Hausburgh, are examples of beautiful but nonpermanent colors.

Synonymous, or too-much-alike Roses.—
A drawback to the purchase of new varieties is the knowledge, gained from past experience, that a large number of those sent out

as new sorts are not sufficiently distinct from known varieties to prove of any value. This is notably the case with the French roses. In England, more care has been exercised in disseminating new kinds than in France, and in ordering English roses we can do so with some confidence that they will at least be distinct. Before enlarging our already cumbersome list of varieties, we think it of great importance to thoroughly sift the sorts now commonly grown, and where two or more varieties bear a strong resemblance to each other in the appearance of the flowers, to reject the inferior kinds. As roses which are synonymous, or too much alike, as regards the form and color of the flowers, we note the following kinds:

Hybrid Remontant.

Alfred Colomb and Wilhelm Koelle.

Anne de Diesbach and Gloire de Paris.

Auguste Mie, Mme. Rival, and Blanche de Beaulieu.

Baron de Bonstetten and Baron Chaurand. Boieldieu and Mme. Boll.

Charles Lefebvre and Marguérite Brassac.

Coquette des Blanches, Baronne de May-

nard, Louise d'Arzens, Mme. A. de Rougemont, and Perfection des Blanches.

Egeria, Princess Mary of Cambridge, and Peach Blossom.

*Eugénie Verdier, Marie Finger, and Mme. Louis Donadine.

*E. Y. Teas, Sénateur Vaisse, and François Fontaine.

General Jacqueminot, La Brillante, Triomphe d'Amiens, Triomphe de Beauté, and Richard Smith.

General Washington and President Lincoln.

*Hippolyte Jamain, Étienne Levet, and President Thiers.

La Reine and Reine du Midi.

La Rosière, Prince Camille, Edouard Dufour, and Souvenir d'Auguste Rivière.

Louise Peyronny and Laelia.

Lyonnaise, Mme. George Schwartz, and Mile. F. de la Forest.

Madame Boutin and Christine Nilsson.

Madame Joly and Michael Bonnet.

Maréchal Vaillant, Avocat Duvivier, and Pourpre d'Orléans.

*Maurice Bernardin, Exposition de Brie, Ferdinand de Lesseps, and Sir Garnet Wolseley.

Madame Noman and Mile. Bonnaire.

Mrs. Standish, Cardinal Patrizzi, and Vainqueur de Solferino.

Miss Hassard, Elizabeth Vigneron, Duchess of Edinburgh, and Duchesse de Vallombrosa.

Portland Blanche and Blanche Vibert.

Souvenir de la Reine des Belges and Prince Albert.

Tea Roses.

Adam and President.

Bon Silène and Goubault.

Bougère and Clothilde.

Caroline and Victoria Modeste.

Élise Sauvage and L'Enfant Trouvé.

Gloire de Dijon, Antonia Decarli, and Mme. Levet.

Le Pactole, Louise de Savoie, and Maréchal Beauregard.

*Madame Bravy, Alba Rosea, and Mme. Sertot.

Madame François Janin and Mlle. Lazarine Poizeau.

Madame Joseph Halphen, Bella, Isabella, Pauline Plantier, and Arch-Duchess Thérèse Isabelle.

Madame Maurin and Madame Denis. Marie Guillot and Triomphe de Milan Narcisse and Enfant de Lyon. *Niphetos and Mathilde.
Perle des Jardins and Perle de Lyon.
Safrano and Madame Charles.
Souvenir d'un Ami and Queen Victoria.

Hybrid Climbing.

Fortune's Yellow and Beauty of Glazen-wood.

Bourbon.

Apolline and Pierre de St. Cyr. Catherine Guillot and Michael Bonnet.

George Peabody, Comice de Tarn-et-Garonne, Dr. Berthet, Dr. Leprêtre, Ferdinand Deppe, General Blanchard, Geo. Cuvier, Jupiter, Omar Pacha, Proserpine, and Souvenir de l'Exposition.

Hermosa, Armosa, Mme. Neumann, and Setina.

Louise Odier and Madame de Stella. *Maréchal Villars and Belle Isadore. Paul Joseph and Charles Martel. Phœnix and Yebles.

Bengal.

Agrippina, Cramoisi-Supérieur, and Eblouissante.

Antheros, Buret, Louis Philippe, President d'Olbecque, Prince Eugène, Purple Crown, and Triumphant.

Noisette.

Champney's Pink Cluster, Belle Marseillaise, and Miss Glegg. Gloth of Gold and Chromatella. Eugène Pirolle and Admiral Rigney. Fellenberg and Beauty of Greenmount. Isabella Gray and Jane Hardy. Lamarque and Jeanne d'Arc. Solfaterre and Augusta.

Moss.

William Lobb and Duchesse d'Ystrie. Gracilis, Prolific, and Charles Morel. Oscar Le Clerc and Madame Bouton.

Many of these roses are identical in all respects save name; the others are certainly too much alike to be grown, even in the largest collections; for though there may exist some considerable difference in the habit of growth of a few of those coupled together, the distinction between the flowers is exceedingly slight, such as can be observed by experts only. I have in every case placed first the variety which seems on the whole the most worthy of being retained; in a few instances I have found it difficult to make a decision, this is where an asterisk (*) is prefixed to the name. In all these cases (*) we

shall make further study of the slight differences which exist between the varieties so as to determine the best; we hope to have the aid of others in this matter.

How to DISTINGUISH VARIETIES .- Old rosarians may need no instruction in this matter, but we believe some useful hints may be given to amateurs who find difficulty in ascertaining the difference which exists between varieties that resemble each other. The chief value of such knowledge is in the power given of determining what sorts should be retained as the best of their type, and what rejected as similar but inferior to them. The flower is naturally the first to claim our attention; observe first the color, second the form, degree of fulness, and size, third the fragrance. Next, examine the vigor and habit of growth, whether the shoots are upright or spreading; the joints between leafstalks, whether close together (short joints), or widely separated (long joints); the thorns, whether they be many or few in number, their thickness, length, color, whether straight or hooked; the leaf-stalks and foliage, whether the leaflets be five, seven, nine, or eleven in number; the color of the foliage and bark, sometimes dark green, sometimes pale, occasionally brown or red; further,

whether the leaves be small or large, round or long, indented or regular, glaucous and smooth, or curled and rough. Then also we have to consider the productiveness and continuity of bloom, and the hardiness of the plant. A year ago I made the discovery of a fact which has an important bearing in this matter. The majority of Hybrid Remontant Roses have five leaflets, though quite a number of kinds in the class are freely furnished with seven. My discovery was this: All Hybrid Remontant Roses that have seven leaflets are light-colored sorts, rose-color, pink, etc. Excepting A. Geoffroy St. Hilaire there is no red or crimson Remontant having seven leaflets; by this I do not mean that a leaf-stalk of a red or crimson sort is never furnished with more than five leaflets: isolated cases can be observed where seven leaflets are found, just as four and five leaved clover-stalks now and then come to notice.

As a practical illustration of our comments on how to distinguish between similar varieties, we invite the amateur to study and compare Alfred Colomb, Marie Baumann, and Marie Rady; three of our best roses, sorts which have many qualities in common, so much so that the inexperienced, when first observing them together, might pronounce them

the same rose. But the expert at once sees distinctive traits that separate one from the other, he notices that Alfred Colomb is the darkest in shade of the three, that it has a more globular, pointed bud and flower than Marie Baumann: that the wood is much more smooth than the others: that late in the season the flowers have more substance and are of better quality than Marie Baumann. So, early in the year, he would select Marie Baumann or Marie Rady as in a degree the most beautiful: the former more circular and symmetrical, if possible, than Alfred Colomb; the latter with more substance, and better filled out. And, so continuing the examination, it is found that these roses are sufficiently distinct, one from the other, both in flower and habit, to make the presence of all three most desirable in all choice collections. Now take up Maurice Bernardin and its near relatives. Very close and minute examinations enable us to detect variations in one way and another, but these variations are so slight that we come to the decision that one name will answer for all. It takes close and continued observation to determine which is most worthy of retention. The choice in this case certainly lies between Maurice Bernardin and Ferdinand de Lesseps, Sir Garnet Wolseley has been thought a trifle fuller and of higher finish than the others, but it is less productive and more tender. A study of the other varieties coupled together as synonymous or too much alike, will develop similar conclusions.

XV.

TYPICAL ROSES. CHARACTERISTICS WHICH
ARE COMMON TO CERTAIN VARIETIES IN
DIFFERENT CLASSES.



O know the peculiarities which pertain to certain families of Hybrid Remontant and other roses, would be advantageous to differ-

ent people in many ways. There are some types, such as La Reine, Jules Margottin, Victor Verdier, and Giant of Battles families, which are quite marked in their characteristics. If all new roses were classified or described as being of such and such origin, or as belonging to a certain class, it would be of great value. The nurseryman is unwilling, with some exceptions, to undertake the propagation of a kind which will not root and grow freely; he also desires such as are of healthy habit and good constitution, in addition to excellence in color and form of flower. The amateur, perhaps, would not knowingly purchase a variety devoid of

fragrance, or one which is not a free autumnal bloomer. The florist would require that a variety should be of steadfast color, one that does not quickly fade; or that it should be useful to force, yielding flowers in abundance, etc. If, therefore, new roses were described as belonging to the La Reine or Victor Verdier type, we should have some very important knowledge of their qualities, since these roses have imparted to their progeny certain distinct attributes by which they may readily be distinguished from others. A consideration of the different prominent types found among Hybrid Remontant and other classes of roses may be studied with interest and profit.

BARONNE PRÉVOST TYPE.—The year 1842 ushered in to rosarians what is now the oldest type of roses in the class, viz., Baronne Prévost. It is not a numerous family, and is also of less importance to us than many of the others, but we can well imagine what pleasure it gave, in years gone by, to the rosarians of the day. This type makes long, stout shoots, fortified with red thorns of unequal length, but generally short; foliage rather oval, somewhat crimpled; flowers large, or very large, of flat shape, very full, fragrant, of some shade of rose. It is the

most hardy type we have. The varieties commonly grown are Boieldieu, Caroline de Sansal, Colonel de Rougemont, Madame Boll, Odéric Vital. They are all frée bloomers in autumn.

LA REINE TYPE.—In 1844, Laffay introduced what he loyally named Rose of the Queen (Rose de la Reine). This variety bore royal sway for many years; it not only still sells well and is to be considered a useful rose, but it should also have our esteem as being the parent of a most useful family. The wood is light green, furnished with occasional thorns; of strong growth; foliage pale green and crimpled. Flowers various shades of rose, generally of semi-globular form, large, somewhat fragrant; free in the autumn; quite hardy, enduring more cold than any of the other families except Baronne Prévost. The leading sorts are: Anne de Diesbach, Antoine Mouton, Auguste Mie, Belle Normande, François Michelon, Gloire de Vitry, Lælia, Louise Peyronny, Madame Alice Dureau, Mme. Nachury, Paul Neyron, Reine du Midi, Ville de St. Denis.

GIANT OF BATTLES TYPE.—The founder of this family was introduced by Nérard in 1846, and doubtless has Bourbon blood in its veins. The colors are various shadings of crimson, very rich and effective when in perfection, but very fleeting; the sun soon gives them a muddy hue. The flowers are well shaped, but small, and have slight fragrance; they are very freely produced in the spring and summer months, but, as a rule, not in the autumn. The shoots are of moderate or short growth, short jointed, erect, very stiff, and covered with very numerous reddish thorns. The foliage is of lustrous dark green, very subject to mildew. They are difficult to propagate from cuttings, and liable to injury from frost. The leading sorts are: Arthur de Sansal, Cardinal Patrizzi, Crimson Bedder, Empereur de Maroc, Eugène Appert, Évêque de Nîmes, Lord Raglan, Louis Chaix, Mrs. Standish, Vainqueur de Solferino.

GENERAL JACQUEMINOT TYPE.—In 1852, the head of what is now considered the most valuable type made his bow to an admiring world; clad in rich crimson livery he still commands respect and admiration, and marshalled under his generalship is the army of dark roses, which so excite and please our senses by their charms and loveliness. This family probably originated from the old Hybrid China Gloire des Rosomanes; they are moderately hardy, but less so than those of the Baronne Prévost, Jules Margottin and La

Reine types. The flowers are invariably shades of red and crimson, generally highly perfumed, freely produced in the spring, but varying greatly as to their autumnal bloom. As a family they are much more shy in the autumn than any of the others.

The shoots are of vigorous growth, not very thick, generally upright, with quite numerous light green spines; the foliage handsome, rather pointed. It is now the most numerous of the families, popular taste demanding crimson roses and those of dark shades. Leading varieties of the type are: Beauty of Waltham, Camille Bernardin, Dupuy Jamain, Léopold Premier, Marie Baumann, Marie Rady, Maurice Bernardin, Pierre Notting, Prince Arthur. There are also Charles Lefebvre, Alfred Colomb, Duke of Edinburgh, Prince Camille, and Sénateur Vaisse, which are supposed to be seedlings of Jacqueminot, but they cluster about them other varieties of the family, and are worthy of separate mention and consideration.

VICTOR VERDIER TYPE.—The head of this family originated with Lacharme, of Lyons, and was sent out by him in 1852. It is doubtless from one of the La Reine type crossed with some monthly rose, probably a Bourbon. The descendants are very numerous, and in

spite of their rather tender habits form a valuable group, being the most free flowering of them all; had they but fragrance they would be unrivalled; but, alas! they are devoid of scent, and therefore cannot rank as high as the others. Fine feathers alone do not constitute fine birds, and surely fragrance is to the rose what song is to the bird. The shoots are of moderate growth, stout, upright, nearly smooth, of a reddish green, with an occasional reddish thorn; the foliage is very large, of a deep lustrous green, very attractive. The flowers are large, well built up; generally shades of rose and pink prevail. It is the best adapted for forcing in winter of all the families.

The leading varieties grown are André Dunand, Captain Christy, Charles Verdier, Countess of Oxford, Etienne Levet, Hippolyte Jamain, Julius Finger, Mme. Geo. Schwartz, Mme. Dévert, Mme. Eugène Chambeyran, Mme. Louis Donadine, Mme. Maxime de la Rocheterie, Mlle. Eugénie Verdier, Marie Cointet, Marie Finger, Mrs. Baker, Oxonian (somewhat fragrant), President Thiers, Pride of Waltham, Rosy Morn, Souvenir du Président Porcher.

Jules Margottin Type.—In 1853 Jules Margottin, of Bourg-la-Reine, near Paris,

sent out a fine rose, which he called after himself; though he has been raising seedling roses ever since, none of them have quite come up to this in worth. Wood, light green; sharp, red thorns, somewhat numerous; shoots rather stout and generally of vigorous growth. Crimpled foliage. Flowers of large size, very full, somewhat flat shape, mostly shades of rose and carmine, almost without perfume; generally free in the autumn. They are very hardy; as a rule difficult of propagation from cuttings, but making very vigorous plants when budded.

Abel Grand, Achille Gonod, Bessie Johnson (quite fragrant), Claude Bernard, Countess of Serenye, Duchesse de Vallombrosa, Edward Morren, Egeria, Emily Laxton, John Hopper, Magna Charta, Madame Gabriel Luizet, Madame Lacharme, Madame Louis Lévêque, Mademoiselle Thérèse Levet, Marchioness of Exeter, Marguérite de St. Amand, Marquise de Castellane, Miss Hassard (scented), Monsieur Noman, Pæonia, Peach Blossom, Princess Mary of Cambridge, Rev. J. B. M. Camm (very sweet), are the leading sorts.

SÉNATEUR VAISSE TYPE.—Sénateur Vaisse was introduced in 1859. In this family we find what are perhaps the most perfectly

formed flowers. The varieties are of moderate growth, with smoother wood than most dark roses; the foliage, too, is more round and of a deeper green. Anicet Bourgeois (new), E. Y. Teas, Madame Adelaide Côte (new), Madame Victor Verdier, and Mrs. Laxton are members of this group.

CHARLES LEFEBURE TYPE.-Lacharme introduced Charles Lefebvre in 1861. He believes that it is the result of a cross (I infer by natural agencies) between Victor Verdier and General Jacqueminot; it certainly shows many of the characteristics of these two sorts. The wood and foliage are light green; occasionally armed with pale red thorns, but as a rule the wood is very smooth. The flowers are more waving in outline than any of the other families; the habit of growth is free, intermediate between Victor Verdier and General Jacqueminot. Glory of Cheshunt, Harrison Weir, Henry Bennett, Madame Anna de Besobrasoff, Marguérite Brassac, Paul Jamain, President Léon de St. Jean, and W. Wilson Saunders are marked members of this type. Dr. Andry, Horace Vernet, Lord Macaulay, Mrs. Harry Turner, Rev. W. H. Stomers and Souvenir du Dr. Jamain, also seem to find a place in this group.

PRINCE CAMILLE TYPE. -- In 1861 E. Verdier sent out Prince Camille de Rohan. In this type we find the darkest, most velvety roses. It would seem as though this family must have been produced by the blending of General Jacqueminot with Giant of Battles. The varieties are of vigorous or free growth; the wood is somewhat darker, the spines less numerous, the habit more spreading than in those of the Jacqueminot type. None of them bloom freely in the autumn, but in the spring their wondrous rich crimson shades gain more admirers than any others. Baron Chaurand, Baron de Bonstetten, La Rosière, Monsieur Boncenne, are prominent members of this family. Abel Carrière, Jean Liabaud, Jean Soupert, and Souvenir d'Auguste Rivière can also be classed with these; though they show more of the Giant of Battles character than the former, and might therefore not inappropriately be placed by themselves.

ALFRED COLOMB TYPE.—Alfred Colomb, sent out in 1865, has a somewhat similar habit of growth to General Jacqueminot, but the thorns are much less numerous, and with a more yellow hue; the flowers are also fuller and more globular, and blossom much more abundantly. A. K. Williams, Madame Al-

phonse Lavallée, and Wilhelm Koelle, may be grouped under this head.

DUKE OF EDINBURGH TYPE.—The only English rose which is the head of a type was sent out by George Paul in 1868. The habit of growth is much like that of Jacqueminot, but the foliage is generally longer and larger. The flowers are not permanent in color. burning very quickly in the sun, and are very sparsely produced in the autumn. It is a very beautiful family when grown in a moist, cool climate; but there are few of the members that will do well under our hot sun. The varieties best known, mostly of recent origin, are: Brightness of Cheshunt, Dr. Hooker, Duke of Connaught, Duke of Teck, Robert Marnock, S. Reynolds Hole, Sultan of Zanzibar, The Shah.

All of the types described above belong to the Hybrid Remontant Class of Roses. Among the Hybrid Noisettes we find two types, the first is the—

MADEMOISELLE BONNAIRE TYPE.—The flowers are of medium size, and of circular, very beautiful form. The growth is moderate or dwarf. The foliage is rather small and somewhat crimpled; the wood light green, fortified with numerous small spines. Though devoid of fragrance, these are our

most charming white roses; the flowers are freely produced throughout June and the summer months. The varieties belonging to the type are Eliza Boelle, Madame Noman, and Madame Oswald de Kerchove.

MADAME A. DE ROUGEMONT TYPE.—The varieties of this type differ greatly from those of the preceding. The habit of growth is free or vigorous; the wood is smoother, the foliage more oval and glaucous, like the Bourbon roses; the flowers are even more freely produced than those of the other type, but are inferior to them in quality. The principal sorts are: Baronne de Maynard, Coquette des Alpes, Coquette des Blanches, Madame Auguste Perrin, Madame François Pittet, Perfection des Blanches.

GLOIRE DE DIJON TYPE.—The head of this family was sent out in 1853, and is the variety from which most of the Climbing Teas have sprung. Young plants of this type are often difficult to start after being rooted from cuttings, but when well established grow luxuriantly. The parentage of Gloire de Dijon is unknown, but I believe it must have originated from a natural cross between some Bourbon and Noisette (Tea-scented) Rose. The foliage shows much of the Bourbon character; the flowers are of globular form,

very large and full. Varieties belonging to this type are Antonia Décarli, Belle Lyonnaise, Gloire de Bordeaux, Jean Lorthois, Madame Bérard, Madame Trifle, Marie Berton.

These types are about all that are really distinct; among the Hybrid Teas it is likely that a separation into groups will be desirable at some time in the future, as this is destined to be an increasing class; but at the present time La France represents the class in a sufficiently distinct way. The Teas might be arranged in family groups, but this is a task which I shall not attempt until some other time; it would be a division less useful than those given.

XVI.

RAISING NEW VARIETIES.



EW Roses occasionally come as sports, but the only method depended upon for their production is sowing seed. Roses of the past

have, for the most part, been the product of nature unaided by the hand of man. The common practice has been to gather the seed, without even keeping the varieties separate, and to sow it promiscuously. There are a few instances recorded where artificial crossings have been resorted to, with successful results, but the number of such operators has been very limited. It is a well-known fact that most fruits and flowers seldom reproduce themselves with exactness from seed; there is often a close resemblance, yet some divergence from the original. Nature is constantly struggling for variation; even though the pistils receive pollen from their own flower alone, this law holds good; but through the agencies of wind, insects, etc., the pollen from

one flower is often carried to the pistils of another, and so natural crossing or hybridization takes place. Thus, by simply gathering and sowing the seeds of one variety, like General Jacqueminot, it has been possible to produce a large number of distinct kinds of great value. This, as stated above, has been the practice up to the present time, but it is a practice on which we should no longer exclusively depend; on the contrary, for the roses of the future we should mainly rely on artificial crossing and hybridization, or, in other words, on manual fecundation.

Laffay, who raised most of the Hybrid Remontants of value that were sent out previous to 1850, is understood to have produced many, or the most, of them, by crossing varieties of the Bourbon Rose with the old crimson Rose du Roi. Vibert, Hardy, and some other of the French rosarians, are also credited with having produced many of their most beautiful sorts by manual fertilization, but as no record has been kept of the varieties used as parents, the result of their work is of no use to the hybridizer of the present day further than that it affords proof that definite results are more certain from artificial than from natural crosses.

The following sorts are all claimed as the

result of artificial crossing; the parentage will be found in the catalogued list of varieties: America, Baronne de Maynard, Captain Christy, Harrison Weir, John Hopper, Julius Finger, Marie Van Houtte, Madame Lacharme, Madame Oswald de Kerchove, Madame Welche, Mrs. Jowitt, Mrs. Harry Turner, Paul Neyron, Princess Mary of Cambridge, Reine Marie Henriette, and the ten Hybrid Teas sent out by Bennett.

To trace out the peculiarities of these kinds, learning so far as possible what influence each parent had in forming the qualities of the offspring, would be an interesting, profitable study. Thus, examining Paul Neyron, we find it has the smooth wood, glaucous foliage, fulness of flower, and tendency to winter-kill from the seed parent, Victor Verdier. The vigor of growth and size of flower are inherited from the fructifying sort, Anne de Diesbach. In this example it will be seen that the influence of the parents has been nearly equal in impressing their characteris-In other examples it will be found that the influence of one parent has been far greater than that of the other; but I hold it as an axiom that, in the case of any rose which is crossed by another variety, the progeny will surely show traits pertaining to both parents.

Among men we find great divergencies of character between brothers and sisters, yet it is observed that they always hold something in common which distinguishes them, some link which connects one with another. It is believed by some of the raisers who have practised hybridization, or crossing of roses, that seedlings of greater beauty are to be obtained simply by selecting heps from naturally fertilized flowers, than from those which have been artificially crossed; that there are very many types among roses which are all beautiful in their way, but that when these are crossed, the varieties which result will have coarsely formed flowers, or be of weak constitution, etc. Such, I infer, is the belief of Messrs. Laxton, William Paul, and others of the English rosarians. With all deference to these gentlemen, whose experience certainly gives weight to their belief, I do not subscribe to this opinion. I cannot but believe that we are even more certain of obtaining flowers of high finish from artificial than we are from natural fertilization, if we will but pattern after nature and carefully study the laws of cause and effect.

Though there is a difference of opinion respecting the quality and finish of the roses

likely to result from manual fecundation, all practitioners admit that there is a certainty by this method of obtaining a product distinctive in character, which is of itself a sufficient inducement to encourage our best efforts in this line. But the truth is, so few crossed roses have been raised, compared to the number from natural selection, that we have learned very little about the successes and failures that have attended the operators in this field of study. Very few of those who have engaged in this work have given us any information that will be of use to those who wish to experiment. It seems to me, the lack of finish and the delicate constitution, averred to belong to varieties raised from artificial crosses, come from bringing together roses of different types, too widely separated in character to blend well. I believe roses belonging to the same type will always cross with good results. Those who wish to practise this art will do well, therefore, to begin with crossing varieties of the same family; the chapter on Typical Roses, which precedes this, should be carefully perused as bearing on this point.

In this connection it may be profitable for us to consider briefly the result of Mr. Bennett's labors in the hybridization of roses. Mr. Bennett fertilized the flowers of various Tea Roses with the pollen of Hybrid Remontants; his productions are therefore true hybrids, not crosses merely, and they are classed as Hybrid Teas. Ten of these hybrids have been raised by Mr. Bennett. We should prefer to consider sorts that have been longer in cultivation, but there are none such. As a rule, the Bennett Roses lack a vigorous and healthy constitution; the best of them, for out-door culture, is Michael Saunders, raised from President fertilized by Madame Victor Verdier. The parents of this sort have comparatively smooth wood, and they are not so widely separated in character as to prevent the production of a healthy offspring. Beauty of Stapleford, the second in point of general usefulness, resulted from crossing Alba Rosea by Countess of Oxford, both smooth-wooded kinds again, of similar vigor of growth. Two objectionable qualities in this rose, a tendency to fade quickly and a liability to mildew badly, are inherited from Countess of Oxford. Yet these are both roses likely to be esteemed generally useful.

From Alba Rosea crossed by Edward Morren came Nancy Lee, an exquisite little rose, with lovely buds, but in habit of growth so dwarf and delicate that our commiseration is excited along with our regard. Duchess of Westminster and Pearl are others of the same class, which are the result of crossing varieties very widely separated in habit of growth, and none of the progeny have constitutions of any vigor. In Duke of Connaught we have the offspring of President crossed by Louis Van Houtte; both parents are smooth-wooded sorts, but no nurseryman can, by ordinary culture, grow from cuttings plants of Louis Van Houtte that will be salable after one season's growth. With such a parent we cannot wonder that the propagation of good plants of Duke of Connaught has been found so tedious and discouraging by those who have undertaken it. I understand that some of the New Jersey florists are growing this variety with profit, but this simply shows what great skill can do, and does not prove that the variety will be generally useful.

Jean Sisley and Hon. George Bancroft are two others of Bennett's which fade very quickly; besides this fault the former sort is very difficult to open and we condemn it as utterly worthless; the latter variety, if grown so that the original color is retained, will generally give satisfaction, though many more malformed blooms are produced than we expect to see in a variety put down as desirable.

Duchess of Connaught shows considerable resemblance to La France, and affords evidence that La France must certainly be a Hybrid Tea. It seems to me that the Duchess only differs from La France in various ways, to be inferior to it.

Now these Bennett Roses, taken as a whole, would seem to strengthen the view of Messrs, William Paul and Laxton, unless we carefully consider the nature of the crosses that were made. From what has been shown we think the inference may naturally be drawn, that in crossing roses we are likely to obtain satisfactory results by blending varieties which have several characteristics in common. Thus, varieties of the same type will be pretty certain to effect good crosses; as General Jacqueminot with Xavier Olibo, Fisher Holmes with Baronne de Bonstetten, Madame Victor Verdier with E. Y. Teas, etc. By hybridizing, bringing Teas and Hybrid Remontants together, we are much less sure of obtaining new sorts of high finish and robust constitution, but far more certain of procuring kinds thoroughly distinct. The operator will then do well to bear this rule in mind: Crossing varieties of the same type will produce seedlings of the best form and finish; blending sorts of different types will bring forth the most distinct kinds. In order to gain knowledge, it is well to practise both these extremes, but the best success will probably follow where a mean course is pursued.

This matter of cross fertilization of roses places before us a vast field in which to study and experiment; and although we have so little to be drawn from the past which may guide us, the fact of its being largely unexplored seems an attractive feature. We can experience sensations somewhat similar to those of the traveller who penetrates a new country, for though he may not be the first to make discoveries, he can be among the first to chronicle results and make the discoveries useful. It is still open for investigators to learn and make known general principles, which should guide us in raising new roses. It will be a gratification for me to know that I have contributed, in some measure at least, to this result.

As few readers are likely to be familiar with the mode of manual fecundation, I will briefly explain my practice. The work is much the easiest to manage under glass, for the reason that insects are not there trouble-

some and we do not have wind and rain to contend with. Whenever possible, choose a clear day, and operate in the morning, so that the flowers can be exposed to the influence of the sun immediately after they have been fertilized. The flower selected for a female parent should have the stamens carefully removed by means of a fine pair of embroidery scissors, a few hours before the pollen is ripe. Should the pollen be quite ripe, some of it is likely to have fallen on the pistils and a perfect cross could not then be assured. If, on the other hand, it be not nearly matured, the pistils are not in proper condition to be fertilized. In such a variety as General Jacqueminot, the stamens should be removed three or four hours before the flower would expand. The petals are then to be gently pulled off, and the stamens cut away. The pollen is then applied to the pistils by carrying to them the flower of the fertilizing sort and gently rubbing them with the stamens holding the pollen, so that the pistils are well covered. If preferred, a fine camel's-hair brush may be used for the purpose of applying the pollen. The pollen must be quite ripe; if it does not attach itself readily to the brush it is not yet in fit condition for use. Those varieties which

are not very double will give more pollen and be better seed-bearers than the very full Kinds like Bon Silène, Safrano, Fisher Holmes, Jean Cherpin, etc., will be found the most suitable for first experiments. If the operation is carried on out of doors, it is desirable to cover the flowers fertilized with fine gauze, to prevent the interference of insects. The insects are not apt to go to flowers from which the petals have been removed, but it is well not to depend on this. The heps should not be gathered until fully ripe, say after the first frost in October; they are then labelled and buried in pots of moist sand. The pots must be covered with glass or something of the kind to keep out mice, which are very fond of the pods. I allow the pods to remain in the sand till the first of January, they are then broken open, the seed taken out, and sown in boxes or pots. The seeds commence coming up three or four weeks after being planted. The seedlings appear with two leaves; so soon as they make a second growth they are pricked out by a knife blade and planted in small pots. They are very subject to mildew, and many are apt to pass away from this cause. In May they can be transplanted and put in open ground, in rich, well-drained

soil. If they do well they can be left there over winter, of course being protected, and allowed to remain for testing. They commence to flower the second year, but many of them show no signs of bloom until the third or fourth year. Instead of planting them out in open ground, some or all can femain in pots, the plants being shifted from time to time to pots of a larger size. One is apt to become very impatient waiting for the seedlings to flower; the result can be hastened by taking buds from them and inserting on some stock of good growth. Meny of the seedlings will produce flowers quite single; these plants are to be at once rooted out. Now and then we may find double flowers of good finish; these are to be compared with flowers of old varieties, which they seem most to resemble, to ascertain whether they are distinct sorts or only inferior imitations of established favorites. It will often require considerable moral courage to refrain from calling our geese, swans. But if it is found, and admitted by general consent, that we have originated something both beautiful and distinct, ah, what pride and satisfaction do we feel! Surely, there can be no more pleasing occupation for those who love and grow roses, than by hybridizing and crossing artificially to engage in the art of producing new varieties, aye, and not new varieties only, but new types of roses now unknown.

XVII.

PUBLICATIONS ON THE ROSE.



N the preface to this book I stated my belief that no compilation on the rose could ever be considered complete and final. I have en-

deavored to bring before those interested in the subject many points of interest which have been ignored, or lightly touched upon, by authors of kindred works; I have also desired to present all the information necessary to the successful cultivation of the rose, exemplified in different ways. I feel, however, that it is but just to my readers, and my brethren of the craft, to record those publications which are useful compilations on this subject. First of all, and above all, let me recommend "A Book about Roses," by S. Reynolds Hole, London. This book of 322 pages is a charming compilation by a gifted writer, who, though in one sense an amateur, has perhaps done more to further the growing of beautiful roses than any other

man. No one has ever written on floricultural subjects so lovingly, so attractively, as Canon Hole; he is in this respect above and beyond all writers, and his book is an adviser and companion that no rosarian can afford to be without.

"The Rose Garden" is a large volume of 256 pages, by William Paul, London. This is a book prepared with care and contains much of interest; perhaps that which is most valuable is the chapter on hybridizing.

"The Amateur's Rose Book," by Shirley Hibberd; "The Rose Amateur's Guide," by Thomas Rivers, rank next in merit. "Roses and Rose Culture," by William Paul; "Cultural Directions for the Rose," by John Cranston; "Roses and their Culture," by W. D. Prior, are other English works which may be added to the library of any one interested in floricultural matters.

In the French language we have "Les Roses," by Jamain and Forney, a work made expensive by the use of gilt edges and colored illustrations, we regret to say of dreadful character. A new work in German, by Thomas Nietner, was published in 1880. This is the largest book on the rose that I know of. It is illustrated with 106 woodcuts and 12 colored plates. The author describes

5007 varieties of roses. The colored illustrations are very beautiful, on the whole, but not all true to nature. In the names of varieties the author often mixes the English. French, and German languages very grotesquely. There are many typographical and other errors, but it is a book worth having if one is willing to pay the price, which is of necessity high.

American publications on the rose are: "The Book of Roses," by Francis Parkman; "Parsons on the Rose," by Samuel B. Parsons: "Prince's Manual of Roses," by W. R. Prince, and "The Rose Manual," by Robert Buist. I believe the last two named are out of print.

Of magazines and papers, which frequently contain articles on the rose that are of interest, there are many. Those which give the most attention to the subject are: Garden and Forest, conducted by Professor C. S. Sargent, New York. The American Florist, Chicago. American Gardening, New York. The Country Gentleman, Albany, N. Y. The Rural New Yorker, New York. The American Garden (monthly), New York. In England there are, The Gardener's Chronicle, Journal of Horticulture, The Garden, The Gardener's Magazine, Gardening Illustrated,

London. All of these are weekly papers. In France we find a monthly magazine entitled *Journal des Roses*, published by Pierre Cochet, Paris, and in Germany the *Rosen Zeitung*, edited by P. Lambert, Frankfurt.

APPENDIX

OLD AND NEW ROSES.

[From the Century Magazine, July, 1883.]



T is worthy of note that our fathers and forefathers had in general a better nomenclature for their roses than is used in these days.

Such names as Dame Blanche, La Favorite, Rosalie, La Coquette, and those of the various mythological characters—as Hebe, Juno, and Calypso—were freely used. Now the favorite roses are Dukes and Duchesses, Counts and Countesses, Lords and Ladies, Generals and Senators, till we wonder if there are any plebeians left.

There are many old roses that should never be forgotten, though they have been pushed aside by new-comers, and are seldom to be found on sale at the florist's. Blanchefleur, Madame Hardy, Madame Zœtman are delightfully fragrant, beautiful white roses,

whose places have not been filled by any of the usurping Remontants; and there are others, of the Provence and Damask families, nearly as fine as those named. In all our improvements, we have not yet bettered the quality of the old white summer roses of thirty and forty years ago. The demand is now altogether for those varieties which bloom more than once, and, in achieving freedom of bloom, we have lost in fragrance. have lost in hardiness; therefore, to leave out and cast aside these favorites of a generation that is passing away is surely a serious mistake. Others beside the old white summer roses should be retained. There is the Centifolia, or cabbage-rose, so unfortunately named, which is yet a model for form and fragrance; there is the common Sweetbrier, with its bright orange-red heps-not a flower for florists truly, but how attractive to the artist, how full of inspiration to the poet, how grateful to all who are pleased by fragrance! For bright yellow shades, we yet look to the old Austrian roses, so called, Harrison's and Persian Yellow. Then what is more charming than the moss-roses? what bouquet more beautiful than loose branches of the Gracilis, the Common and Crested moss-roses?

The Charles Lawson, Coupe d'Hébé, Paul Ricaut, and some others of the old summer kinds are also very useful as pillar roses; they have nearly everything that makes a rose valuable save the property of blossoming more than once. It must also be remembered that the old roses were not alone such as bloomed in June only. Agrippina, Edward Desfosses. Hermosa, Souvenir de la Malmaison, Aimée Vibert, Lamarque, Solfaterre, Bon Silène, Bougére, Devoniensis, Flavescens, Madame de Vatry, Niphetos, Odorata, Safrano, Triomphe de Luxembourg are members of the Bengal, Bourbon, Noisette, and Tea families, introduced more than forty years ago, and in none of these groups has any great advance been made. Certainly, many beautiful and distinct varieties have since been introduced, but the improvement in quality of these classes has been slight as compared to the advance made by the introduction of new groups.

Roses of the present, as compared with those of the past, are superior by reason of the introduction of groups that are hardy, or nearly so, and that blossom at intervals and continuously through the summer and autumn. We remember the great interest awakened by the varieties sent out by Laffay,

such as Madame Laffay, Mrs. Elliott, and, a few years after, La Reine. The two former have nearly disappeared from cultivation; but La Reine is still much grown, and, like the General Jacqueminot, Victor Verdier, and Jules Margottin, has been the progenitor of most of the hardy roses cultivated at this day.

It would astonish the uninitiated to learn the number, not only of those who propagate plants for sale, but those who are engaged in the production of new varieties from seed. Strange to say, the raising of new roses has been done successfully only in France and England. Italy and Germany have accomplished almost nothing in this line, although the climate of those countries is as favorable for the purpose as that of the other two; but in this they only follow the general line of horticultural progress, for Italy and Germany have produced few varieties of European fruits that are valuable. America has originated more fruits of high quality than any other country, but her contributions to the list of good roses, though larger than those of Italy and Germany, fall far short of what they should be. With an extent of territory that gives greater variation of climate and soil than is to be found in any

other country, it must be that America will yet produce her share of fine roses.

With the year 1842 appeared the Baronne Prévost, which is now the oldest type among Hybrid Remontant roses. It is not a numerous family, and is of much less importance to us than many others, but we can well imagine what pleasure it gave when it was introduced to the rosarians of that day. The flowers are very large and full, flat in form, quite fragrant, and in color some shade of rose. It is the most hardy type we have. The only varieties commonly grown are Boieldieu, Colonel de Rougemont, and Madame Boll.

In 1843, Laffay introduced what he loyally named Rose of the Queen (Rose de la Reine). This variety bore royal sway for many years. It not only still sells well and is to be considered a useful rose, but it should also have our esteem as being the parent of a most useful family. The flowers are of various shades of rose, generally of semi-globular form, large, somewhat fragrant; free in the autumn; quite hardy, enduring more cold than any of the other families except Baronne Prévost. The leading sorts are: Anne de Diesbach, Antoine Mouton, Auguste Mie, Belle Normande, François Michelon, Madame Nachury, Paul Neyron. Among

the varieties of this family none equal in merit the François Michelon.

The Giant of Battles was introduced by Nérard in 1846, and doubtless has Bourbon blood in its veins. The colors are of various shadings of crimson, very rich and effective when in perfection, but very fleeting. sun soon gives them a muddy hue. flowers are well shaped but small, and have slight fragrance; they are very freely produced in the spring and summer months, but as a rule not in the autumn. The foliage is of lustrous dark green, very subject to mildew. They are difficult to propagate from cuttings, and are liable to injury from frost. The leading sorts are: Cardinal Patrizzi. Crimson Bedder, Empereur de Maroc, Eugène Appert, Lord Raglan, Mrs. Standish. Owing chiefly to their bad constitution, they are rapidly disappearing from cultivation, and in a few years it is likely none will remain. The same rich color can now be found in the Prince Camille family.

The General Jacqueminot, the head of what is now considered the most valuable type, made its bow, in 1852, to an admiring world: clad in rich crimson livery, it still commands respect and admiration, and marshalled under its generalship is the army of

dark roses which so excite and please our senses by their charms and loveliness. This family probably originated from the old hybrid China, Gloire des Rosomanes; they are moderately hardy, but less so than those of the Baronne Prévost, Jules Margottin, and La Reine types. The flowers are invariably shades of red and crimson, generally highly perfumed, freely produced in the spring, but varying greatly as to their autumnal bloom. As a family, they are much more shy in the autumn than any of the others. It is now the most numerous of the families, due to the fact that popular taste inclines more to crimson than to light-colored roses. Leading varieties of this type are Beauty of Waltham, Marie Baumann (moderate growth), Marie Rady, Maurice Bernardin, Pierre Notting, Xavier Olibo (dwarf growth), also Sénateur Vaisse, Charles Lefebvre, Prince Camille, Alfred Colomb, and Duke of Edinburgh. About the latter varieties cluster numerous others of the family of less importance.

The head of the Victor Verdier type originated with the greatest of all the raisers, Lacharme, of Lyons, and was sent out by him in 1852. It is doubtless from one of the La Reine type, crossed with some monthly rose, probably a Bourbon. The descendants

are very numerous, and in spite of their rather tender habits, form a valuable group, being the most free to flower of them all. If they were fragrant, they would be unrivalled; but, alas! they are devoid of scent, and therefore cannot rank as high as the others. Fine feathers alone do not make fine birds, and surely fragrance is to the rose what song is to the bird. Its flowers are large, well built up; generally shades of rose and pink prevail; mildew operates against these more than any others except the Giant of Battles type. Of all the families it is the best adapted for forcing in winter. The leading varieties grown are Captain Christy, Countess of Oxford, Étienne Levet, Hippolyte Jamain, Julius Finger, Madame George Schwartz, Mademoiselle Eugénie Verdier, Marie Cointet, Marie Finger, Mrs. Baker, Oxonian (somewhat fragrant), Président Thiers, Pride of Waltham, Rosy Morn.

In 1853, Jules Margottin, of Bourg-la-Reine, near Paris, sent out a fine rose, which he called after himself. Though he has been raising seedling roses ever since, none of them has quite come up in worth to his namesake, the flowers of which are large in size, very full, somewhat flat in shape, in shades of rose and carmine, and almost without per-

fume. They are generally free in the autumn, are very hardy, though as a rule difficult of propagation from cuttings, but making very vigorous plants when budded. The leading sorts: Abel Grand, Bessie Johnson (quite fragrant), Charles Margottin (reddish crimson), Countess of Serenve, Duchesse de Vallombrosa, Edward Morren, Egeria, Emily Laxton, John Hopper, Magna Charta, Madame Gabriel Luizet, Madame Lacharme, Madame Louis Lévêque, Mademoiselle Thérèse Levet, Marchioness of Exeter, Marguérite de St. Amande, Marquise de Castellane, Miss Hassard (scented), Monsieur Noman, Peach Blossom, Princess Mary of Cambridge, and Rev. J. B. M. Camm, which is very sweet.

The Sénateur Vaisse became known in 1859. In this family we find the most perfectly formed flowers; the varieties are of moderate growth, with smoother wood than most of the others. The foliage is more round and perhaps of a deeper green. Madame Victor Verdier, Monsieur E. Y. Teas, and Mrs. Laxton form the leading members.

Charles Lefebvre, one of Lacharme's productions, was introduced in 1861. The originator believes that this came from a cross of Victor Verdier and General Jacqueminot.

It certainly takes after the characteristics of those two sorts. The flowers are more wavy in outline than in the other families; the growth is somewhat less vigorous, the wood more smooth. Dr. Andry, Glory of Cheshunt, Harrison Weir, Horace Vernet, Lord Macaulay, Madame Anna de Besobrasoff, Marguerite Brassac, Mrs. Harry Turner, Paul Jamain, and W. Wilson Saunders are the leading kinds.

Prince Camille, which was introduced in 1861, by E. Verdier, gives us the darkest type of roses which we have. From appearances. we should think it originated in a natural cross between varieties of the Giant of Battles and General Jacqueminot types, the characteristics of the latter predominating. None of these bloom freely in autumn, but they are magnificent in their dark, velvety shades, as seen in the spring. Baron Chaurand, Baron de Bonstetten, Abel Carrière, Henry Bennett, Jean Cherpin, Jean Liabaud, Jean Soupert, La Rosière, Monsieur Boncenne, and Président Léon de St. Jean comprise the family. More than the others, Abel Carrière and Jean Soupert take after Giant of Battles.

Alfred Colomb, another of Lacharme's raising (1865), has a similar habit of growth to the Jacqueminot type, but the thorns are

less numerous and with more of a yellowish hue. The flowers are more globular, stand the sun better, and are much more freely produced, constituting a most valuable family. The varieties are A. K. Williams, Fisher Holmes, and Wilhelm Koelle.

The Duke of Edinburgh, sent out by George Paul in 1868, is the only English rose which may be regarded as the founder of a family. The flowers are inclined to be thinner in petal than those of the Jacqueminot type, rather smaller, burn much more quickly in the sun, and are not constant in autumn. It is a very beautiful family when grown in a moist, cool climate; but there are few of the members that will do well under our hot sun. The varieties best known, mostly of recent origin, are, Brightness of Cheshunt, Dr. Hooker, Duke of Connaught, Duke of Teck, Robert Marnock, S. Reynolds Hole, Sultan of Zanzibar, and The Shah.

Baroness Rothschild is the typical representative of a small but very beautiful family, the very aristocracy of roses. It is not a new rose, but its merits have not been recognized till within a few years. Now that the florists have finally taken it for winter forcing, it is becoming well known, but it will always command comparatively high prices

Twelve and fifteen dollars for a dozen blooms have been the prices during the winter months. Mabel Morrison, Merveille de Lyon, and White Baroness are three white roses of the type that are to-day the special sensation of the rose world. They have the same short-jointed stems, with the beautiful foliage closely set under the blooms, that are a characteristic and pleasing feature of the parent. Mabel Morrison is the only one of the white trio which is likely to be seen in any number for some time to come; the others are but just out, and florists will use all the wood the plants make for propagating. Three white, hardy varieties of such high rank as these may well excite the enthusiasm of all who grow roses.

The above description exhausts the divisions which may be considered distinct types. Though there are other roses which stand aloof, they have few or no followers. Such are Madame Charles Wood, Caroline de Sansal, and a few others.

All of the families of roses so far discussed are members of the Hybrid Remontant or Hybrid Perpetual class, certainly the most important of the many groups of roses now cultivated; but there are others of modern origin, which have also strong claims on our

attention, the oldest of which is the Hybrid Noisette family, that may be divided into two sections. The original variety, Madame Récamier, was sent out by Lacharme in 1853. Nothing more is known of the origin of this sort, other than that one of the parents is supposed to have been a Noisette rose. Belonging to this type are Mademoiselle Bonnaire, Madame Noman, Eliza Boelle, and Madame Oswald de Kerchove. The flowers are of medium size, and of circular, very beautiful form. Though devoid of fragrance, the flowers are freely produced from June throughout the summer; for which reason these varieties are to be valued as most charming acquisitions on our list of white or light-tinted roses.

In 1860, Lacharme sent out Madame Gustave Bonnet, the head of the second division of the Hybrid Noisette family. This variety, the originator claims, was produced from seed of Blanche Lafitte (Bourbon), fertilized by Sappho (Portland). If this be true, this type should go by some other term than Hybrid Noisette; but the name has been fixed by usage, and as they have no fragrance, they will, at all events, smell as sweet by this name as any other. Belonging to the same type as Madame Gustave Bonnet are

Louise Darzens, Madame Alfred de Rougemont, Baronne de Maynard, Coquette des Alpes, Coquette des Blanches, and Madame François Pittet, all raised by Lacharme. Madame Bellenden Ker, Perfection des Blanches, and Madame Auguste Perrin, of the same family, are the production of other persons. These kinds differ from those of the Mademoiselle Bonnaire type, in being of more vigorous habit, of smoother wood, and of more oval and glaucous foliage, more like that of the Bourbons. The flowers are even more freely produced, but are inferior in quality to those of the other type.

Gloire de Dijon was sent out in 1853. In its habit of growth, it showed itself distinct from all others, and has become the head of a class now known as Climbing Teas. When the plant has once become established it is of vigorous growth, and has long been a favorite as a pillar rose, both for conservatories and in favorable situations out of doors. Its parentage is not known, but I believe it must have originated from a natural cross between a Bourbon and a tea-scented Noisette rose. The most popular kinds of this type are Gloire de Bordeaux, Belle Lyonnaise, Madame Trifle, Madame Bérard, Marie Berton, Beauty of Europe, and Reine Marie Pia, but none of

them has attracted the same attention as the old sort.

The most valuable type of roses since General Jacqueminot is the Hybrid Tea. The original of this new race is La France, introduced, in 1869, by Guillot, of Lyons. This was raised from the seed of a Tea rose, but is entirely distinct from all tea-scented kinds. In color it is a soft, silvery rose, delicately tinged with a faint shade of lilac; in its fragrance, a most delightful combination of the Provence and Tea perfumes. It blooms perpetually, the end of each shoot always carrying a flower-bud, and these shoots constantly pushing forth. In these three qualities, so essential to a perfect rose. it has scarcely any equal, and solely by its intrinsic merits has now gained a popularity shared by few or none others of its sister-Duchess of Connaught and Viscountess Falmouth, raised by Bennett, of England, are varieties of the same type, which most nearly approach La France, both in appearance and fragrance. Next to them comes Madame Alexandre Bernaix, raised by Guillot. Michael Saunders, Duke of Connaught, and Nancy Lee, all varieties of Bennett's, are very beautiful; but the two last

named are of such delicate habit that they will never be useful for general culture.

The Polyantha Rose is of recent introduction. The original, which is a native of Japan, has very small, single white flowers, about the size of a silver twenty-five-cent piece; it is of sarmentous growth, quite hardy, and blooms in panicles, in the spring. Some of the French growers have raised seedlings, crosses (natural or artificial) with Teas or other classes, which are true ever-blooming roses and of great merit. The varieties best known are Paquerette, Anne Marie de Montravel, Mignonette, and Cécile Brünner. They are more tender than the parent, but are quite as hardy as the Hybrid Noisettes and the Hybrid Teas. As an edging for a bed of monthly roses, nothing can be more effective than a row or two of Paquerette or one of the other Polyanthas. They are extremely beautiful little flowers, which will survive all the sneers of the horticultural snobs who see no beauty in a rose much smaller in size than a peony.

The attention of hybridizers is now directed toward crossing varieties of Tea with Hybrid Remontant roses, and new sorts of great value may confidently be expected from

the efforts which are being made in this line. To obtain a variety which shall in a large degree combine the hardiness of La Reine or Jacqueminot, with the fragrance and free-blooming qualities of Madame Bravy or Bon Silène, is surely worth striving for.

This leads us to a consideration of the roses of the future, what they may be, what they should be. Roses of the past have been the product of nature, unaided by the hand of man. Roses of the present also chiefly come from sowing the seeds of varieties which have not been crossed, except as the crossing has been a matter of chance by natural In some instances efforts at artiagencies. ficial hybridization have been recorded that have given successful results. Roses of the future may and should come principally as the result of artificial fecundation and hybridization. A long essay would be required to treat this subject and do it justice in a magazine article. I can only touch on some of the more salient points. Laffay, who raised most of the Hybrid Remontants of value previous to 1850, is understood to have produced many of them by crossing artificially varieties of the Bourbon roses with the old crimson Rose du Roi. Vibert, Hardy, and some other of the French rosarians are also known to have produced a great many of our most beautiful roses by manual fertilization; but as no record has been kept of the varieties used for the purpose, the result of their work is of no use to the hybridizer of this day further than to afford proof that definite results can better be obtained from artificial than from natural crosses. Our aim should be to control and assist nature, as far as possible, in her tendency toward variation.

There has been so much carelessness, not to say ignorance, with regard to the parentage of the various varieties of roses, that I do not think it would be possible to name fifty kinds and give the parentage on both sides. For the past twenty-five years, nature has been so lavish in producing variations of great beauty, that those who have raised new roses have been content to gather the heps and sow the seed, depending on natural crosses to produce new and desirable kinds. only have they thus entirely relied on nature to accomplish what they wished; they have not even taken the pains, except in few instances, to separate the seed of one variety from that of another, but have sowed them all promiscuously. To trace the peculiarities of each variety, learning just what influence each parent had in forming the qualities of the offspring, would be an interesting and profitable study. I hold it as an axiom, that, in the progeny of any rose which has been crossed with another, the influence of both parents can be distinctly traced.

Artificial crossing and hybridization of roses is generally performed by removing with fine scissors the stamens of the flower to be operated on, and then shaking over it the flower of that which contains the pollen to be used, or by gently dusting it on with a camel's-hair brush. In this manner it is supposed that the characteristics of each sort will be given in about equal measure to the progeny. It is not uncommon to cross varieties without removing the stamens, in which case the influence of the female parent is believed to preponderate; but neither of these methods has been accurately proved as to the results. An interesting question which arises, in connection with the subject of artificial fertilization, is how far removed from each other, in the habit of growth and in other peculiarities, may be the varieties which are to be used as parents, without preventing a successful crossing of the two.

In crossing roses, we are most certain to attain satisfactory results by blending seedbearing varieties which have several characteristic features in common: thus, varieties of the same type will nearly always effect good crosses, as General Jacqueminot with Xavier Olibo, Madame Victor Verdier with E. Y. Teas; but, on account of a certain resemblance which must prevail among the kinds of one type, we are less likely to obtain new sorts of any marked individuality than would result from hybridizing varieties of one group by those of another not too widely separated group; in other words, we should avoid the extremes of crossing varieties too much alike, and of hybridizing one kind by another so widely removed in characteristics that a successful, healthy progeny cannot result. Here is a vast field still largely unexplored in which to study and experiment. This is not a matter to be confined to scientists; all who truly love roses, all that have some knowledge of their individual peculiarities, may engage in this fascinating pursuit with probabilities of success.

"This is an art.

Which does mend nature, change it rather; but The art itself is nature."

A common error committed by the beginner is in attempting to grow varieties that are of delicate habit and feeble constitution. At-

tracted by the great beauty, or fragrance of a flower, he does not consider, or does not understand, that vigor of growth, perpetuity of bloom, and perfect hardiness are very seldom combined with the qualities which have allured him.

A pleasing departure from the usual method of growing roses is found in the peggingdown system. Grown in this way, the long shoots are carefully bent down and fastened to the ground by means of hooked sticks or pegs. Flower-buds will then push out all along the shoots, and a correspondingly large number of blooms be obtained. True, the individual flowers are apt to be of somewhat inferior quality to those produced in the ordinary way, but a mass of color not otherwise obtainable can thus be had. I do not advocate this system to the exclusion of the one commonly pursued, but its occasional or alternate use is certainly capable of yielding most satisfactory results.

Besides planting roses in beds, it is well to scatter them through the borders of our gardens, giving the favored positions to the more delicate kinds. Among the best varieties which yet require some extra care are Eugénie Verdier—the most beautiful of the Victor Verdier type—a rose of very delicate

coloring, silvery-pink, tinged with salmon, and Charles Lefebvre, which is beautiful in both flower and leaf, the color of General Jacqueminot deepened by a shade of satinypurple. Among the roses not sufficiently well known are Marguerite de St. Amande, a deep pink sort, which gives beautiful buds as well as fine flowers, and blossoms through the summer and autumn months: Baroness Rothschild, a blush-pink, with exquisite cupshaped flowers freely produced; François Michelon, a striking variety, intermediate in character between its parent La Reine and General Jacqueminot, thus uniting two rival dynasties. It has large, deep rose-colored flowers, veined with lilac, and is of splendid globular form. It blooms late, the flowers not developing until most others of the same class are past their prime. Eliza Boelle is. perhaps, the best white rose that we have. It blooms profusely all through the summer months; the flowers are full, of the most perfect, globular form, the centre generally tinged with blush. It is not possible to imagine a flower of greater beauty. The best of the moss-roses are Gracilis, Common. and Crested. Not the least of the qualities we desire in a rose is fragrance. In this regard, all varieties of all classes must do

homage to La France, the sweetest of fragrant roses. To be sure, it is rather tender, but it is easily protected so as to winter safely. It does not always open well, but it is a simple matter to assist it, an operation not practicable with most varieties that open imperfectly. If the buds of La France show a tendency to remain closed, by gently pressing the point of the bloom with the fingers, and then blowing into the centre, the flower will almost invariably expand, and the pent-up fragrance escape.

Not enough attention is given to the Bourbon and Tearoses. The Hybrid Remontants justly claim first attention, when they are in perfection; but after the first blossoming is over, throughout July, August, and September they are much less attractive than many of the monthly roses. Varieties like Bougère, Homer, Madame de Vatry, and Marie Van Houtte, will give a continuous supply of flowers when the so-called hardy roses are almost or altogether out of bloom. How faithfully the various varieties of Tea roses reproduce the beautiful tints often painted in the sky at sunset and at sunrise! The many shades of rose, pink, lilac, white, salmon, yellow, etc., are found in both alike, and it would often puzzle us to decide whether the most beautiful combinations of these delicate shades are found, in the illumined clouds, or in the petals of these roses. Tea roses are rather tender, but in truth they have, in this respect, been somewhat maligned. sorts named above are, in reality, but little more tender than La France, the Hybrid Noisettes, and all the Victor Verdier race of Hybrid Remontants. If earth be hilled up about the plants, and a slight covering of loose material, like branches of evergreens, be applied, the more robust sorts of monthly roses will winter in safety. In giving protection, care must be taken not to smother the plants by entirely excluding the air. This never occurs from the use of evergreen branches, but if straw or litter be taken. sticks or boards should be used to prevent the material matting together. This is one of the cases where it is possible to kill by mistaken kindness.

Canon Hole, in his charming "Book about Roses," says:

"He who would have beautiful roses in his garden must have beautiful roses in his heart. He must love them well and always. He must have not only the glowing admiration, the enthusiasm, and the passion, but the tenderness, the thoughtfulness, the reverence, the watchfulness of love."

This is the sum and substance of success in rose culture; without this true love, failure, partial or complete, is sure to follow.

CATALOGUE OF VARIETIES,

DESCRIBING ALL SORTS NOW IN GENERAL CULTIVATION.



REGISTER of this nature cannot attain absolute perfection, but I have been at great pains to make it complete and accurate. As re-

gards the age of the different varieties and by whom sent out, I have obtained my information from the raisers themselves, their catalogues, from various horticultural magazines and books, mostly French, and from a few amateurs, who have interested themselves in the subject. Among these are Mons, Jean Sisley, whose monograph of the roses raised at Lyons has been of valuable service. I believe this will be found much the most reliable list of the kind, but from seeing so many inaccuracies in others of similar character I know there must be some errors in this. Any of my readers who may discover mistakes or misstatements of facts will greatly oblige by communicating with me, giving the authority which they have. In the descriptions, the more popular sorts are more fully treated than those not so well known; where a variety is described as belonging to a type, a lengthy description is rendered unnecessary and only the most distinctive features are given. A familiarity with the contents of Chapter XV. will therefore be a great help to those who wish to gain a correct impression of the varieties here described.

In compiling this list the following method has been determined on as the best. The name of the variety is first given; then, the habit of growth; next, letters which show to what class the variety belongs; then, in the second column, name of the raiser, and year when the rose was sent out; afterward, the parentage, if known, or type to which the sort may belong; and, lastly, the description. In case of synonyms, they are placed in brackets after the accepted name. It is desirable to add the following, as an explanation of the plan used in describing varieties:

Color—the prevailing shade in the most perfect development of the flower.

Size—small, from one to two inches in diameter; medium, from two to three inches in diameter; large, from three to four inches

in diameter; very large, above four inches in diameter.

Fulness—semi-double, with two to four rows of petals; double, having more than four rows of petals, but the seed organs are shown when the flower expands; full, in which the expanded flowers seldom show the stamens.

Form—cupped, the inner petals are shorter than the outer ones, the latter stand erect and are generally incurved; globular, outer petals are concave, often with convex edges, the petals fold richly one about the other; reflexed, numerous petals, generally small, rising tier above tier to the centre; flat, the surface of the flower is level and all the petals are exposed to view—varieties of this kind are very full and rarely are seed-bearers.

Abbreviations used, describing the habit of growth:

Vig., Vigorous.—Those sorts which are most luxuriant in growth.

Free.—Varieties which rank next in order, producing shoots somewhat shorter or less strong than the first.

Mod., Moderate.—These kinds make a compact growth, but do not produce long shoots.

Dwf., Dwarf.-These are the most delicate

or slow-growing sorts. Among hardy roses, those marked *dwf*. should, almost invariably, be budded.

It is to be noted that nearly all varieties which have in them shades of lilac, violet, or purple are very fleeting in color.

ABBREVIATIONS, DESCRIBING THE CLASSES TO WHICH THE VARIETIES BELONG.

A.—Austrian.

Ay.—Ayrshire.

Bk.-Banksia.

B.-Bourbon.

B'lt.—Boursault.

Cl. T .- Climbing Tea.

Dam.-Damask.

Ev.—Evergreen.

Fr.—French.

H. Ch.—Hybrid China.

H. Cl.—Hybrid Climbing.

H. N.-Hybrid Noisette.

H. R.-Hybrid Remontant.

H. T.—Hybrid Tea.

Mic.-Microphylla.

M.-Moss.

Mult.-Multiflora.

N.-Noisette.

P. M.—Perpetual Moss.

Pol.—Polyantha.

P.—Prairie.

Prov.—Provence.

S.—Scotch.

T.—Tea Roses.

CATALOGUE OF VARIETIES

VARIETY, HABIT OF GROWTH, AND CLASS.

DESCRIPTION.

I. A. Geoffroy-St.-Hi-E. Verdier, 1878. Red, with a shade of crimson; medium size, full; fine, cirlaire, mod. H.R. rieties of this class. 2. A. M. Ampère. H. Liabaud, 1881. Raised from Lion des Combats. 3. Abbé Bramerel, Guillot fils, 1871. Raised from Giant of Battles. Crimson, shaded with velmod. H.R.vety purple.

4. Abbé Giraudier. H. Levet, 1869. Bright rose. R. 5. Abbé Reynaud, vig. Guillot fils, 1863. Large, carmine-rose

H.C.

H.R.

or free. H.R.

H,R.

o. Acidalie, free. B.

President.)

cular form, fragrant and free. Seed organs well developed; seven leaflets are common, a great rarity among dark va-

flowers, not full enough; growth very rank.

6. Abel Carrière, mod. E. Verdier, 1875. Velvety-crimson, with fiery centre; large, full flowers, fra-grant; short wood, sharp red spines; shows traces of Bourbon blood. A rose of better form and finish than most of the very dark sorts. Shy in autumn.

7. Abel Grand, mod. Damaizin, 1865. Jules Margottin type. Glossy rose, large and full, fragrant; unreliable as to form, often the finest in autumn.

8. Achille Gonod, free. Gonod, 1864. Raised from Jules Margottin. Rosy-carmine.

Rousseau, 1837. Blush, often white; fragrant.

10. Adam, mod. (Syn. Adam, 1838. Salmon-rose, fragrant; esteemed for forcing.

11. Admiral Nelson, vig. Ducher, 1859. Bright crimson, double, H.R. cupped form; very spiny, straggling growth: shows Bourbon origin.

DESCRIPTION.

12. Admiral Rigney. N. See Eugène Pirolle. 13. Adolphe Brong-Margottin, 1868. Carmine-red, full fra-

niard, mod. H.R.

tophle, mod. T.

Fr.

Superieur.) Beng.

dens, vig. N.

vig. Bk.

H.R.

H.R.

vig. H.R. 25. Alexandrine Bach-Margottin, 1852. Cherry-red, rosette metieff, mod. H.R.

free. P.M.

grant.

14. Adrienne Chris-Guillot fils, 1868. Apricot-yellow.

15. African Black, mod. Dark crimson. Not valuable.

16. Agrippina, mod. Introduced to England from China in (Syn. Cramoisi- 1789. Rich crimson, specially valued for its fine buds. A useful sort for bedding out and for forcing. The best of the class.
17. Aimée Vibert, free, Vibert, 1828. Raised from Sempervirens

Plena. Pure white, small, double flowers, produced in large clusters;

seven leaflets; nearly hardy.

18. Aimée Vibert Scan-Curtis, 1841. A sport from the above; identical with the old kind, except that it is of stronger growth. These pretty sorts are both difficult to propagate

from cuttings.

19. Alba Carnea, free.

19. Alba Carnea, free.

19. Alba Grandiflora,

20. Alba Grandiflora,

19. Alba Grandiflora, ed.

21. Alba Mutabilis, free. E. Verdier, 1865. Pink, sometimes mottled, medium size, double. Wood armed with dark-brown thorns.

22. Alba Rosea, free. T. Sarter, 1855. See Madame Bravy. 23. Alexandre Dutitre. Lévêque, 1878. Bright rose.

24. Alexandre Fontaine, Cherry-red; mildews easily; shy bloomer.

shape, medium size; foliage dark; wood armed with pale red thorns.

26. Alfred Colomb, free. Lacharme, 1865. Raised from General Jacqueminot. Carmine-crimson; large, or very large, full; of fine, globular form, extremely fragrant; green wood, with occasional pale green thorns, the foliage large and handsome. A grand rose; the most useful, in its class, for general cultivation.

27. Alfred de Dalmas, Laffay, 1855. Pink, small flowers, of poor quality; the wood is very thorny; straggling habit.

DESCRIPTION.

28.	Alfre	d	đe	Rouge-
	mont,	fre	e.	Rouge- H.R.

30. Alfred Leveau. Vigneron, 1880. Carmine-rose. H.R.

or free. M.

34. Alpaide de Rotalier, Campy, 1863. Rose-color. free. H.R.

mod. H.R.

mod. B.

mans, mod. T.

vig. H.R.41. Amabilis, free.

son Boursault.) B'lt.

R.

6. America, vig. N.

Lacharme, 1863. Raised from General Jacqueminot. Crimson-magenta, very large, full, well built, fragrant; rather shy bloomer.

9. Alfred K. Williams, Schwartz, 1877. Magenta-red, shaded with crimson; large, full flowers, partly imbricated. A very beautiful rose; but, thus far, not constant and reliable.

31. Alice Dureau. H.R. Vigneron, 1867. Rosy-lilac, good globular form.

32. Alice Leroy, mod. Trouillard, 1842. Pink, semi-double; buds are not mossy. Armed with very red spines.

33. Aline Sisley, mod. Guillot fils, 1874. Violet-rose, not a clear shade; a fruity, pleasant fragrance.

35. Alphonse Damaizin, Damaizin, 1861. Bright crimson.

36. Alphonse Karr. H. Portemer, 1845. Flesh color, margined with carmine.

37. Alphonse Karr. H. Feuillet, 1855. Bright rose, medium size, full.

38. Alphonse Karr, Nabonnand, 1878. Raised from Duchess of Edinburgh. Rosy-crimson. Sent out as a Tea; but, with its parent, is better placed among the Bengals. There is, as yet, no crimson Tea. 39. Alphonse Mortle-Madame Ducher, 1875. Lilac-rose.

40. *Alphonse Soupert, Lacharme, 1883. Large, very handsome and showy; bright rose color.

Touvais. Flesh color, centre rose; habit, branching.

42. Amadis, vig. (Crim- Laffay, 1829. Purplish-crimson; semidouble.

43. Amazone, mod. 7. Ducher, 1872. Yellow, reverse of petals veined with rose; long, well-formed buds; habit delicate.

44. Ambrogio Maggi. Pernet, 1879. Raised from John Hopper. Bright rose.

45. Amélie Hoste. H. Gonod, 1874. Pink, reverse of petals darker.

C. G. Page, 1859. (Sent out by T. G. Ward, of Washington.) Raised from

DESCRIPTION.

dwf. T.

Solfaterre X Safrano. Pale yellow, with fawn centre; large, full flowers; more shy than either parent.

vig. H.R.

47. American Banner, G. Cartwright, 1879. (Sent out by Peter Henderson.) A sport from Bon Silène. Carmine, striped with white, semi-double; the flowers and foliage are both small. Of no value except as a curiosity.

48. *American Beauty, Hon. G. Bancroft; sent out by George Field & Bro., 1885. Large, globular; deep pink, shaded with carmine; delicious odor; has proved to be a most desirable variety for forcing.

49. André Dunand, Schwartz, 1871. Raised from Victor Verdier. Silvery rose; fades quickly

and often opens badly.

free. T.

50. André Leroy, mod. Trouillard, 1868. (Sent out by Standish.) Crimson, with a shade of violet; an attractive color, but very transient; often ill-formed. 51. * Angèle Jacquier, Guillot, 1879. Pale rose, sometimes flesh,

52. Anicet H,R

base of petals tinged with coppery yellow; very sweet, free flowering. lovely Tea, bearing some resemblance both to Catherine Mermet and Rubens. Bourgeois. Moreau-Robert, 1880. Raised from Senateur Vaisse × Madame Victor Verdier. Cherry-red, cupped form.

Anna Alexieff, free. Margottin, 1858. Rose color, large, full flowers, freely produced.
 Anna Eliza, vig. P. Williams. Red, tinged with lilac, nu-

merous thorns, 55. Anna Ollivier, mod. Ducher, 1872. Buff, shaded with rose.

vig. H.R.

56. Anna Maria, vig. P. Feast, 1843. Pale pink; very few thorns. 58. Anne de Diesbach, Lacharme, 1858. Raised from La Reine. In color, the most lovely shade of carmine; very large, double flowers, fragrant; one of the hardiest. A very de-

59. Anne Marie Cote, Guillot fils. 1875. White, sometimes tinged with pink.

Montravel, mod. Pol.

60. Anne Marie de Rambaux & Dubreuil, 1879. Very small, full, white flowers, somewhat fragrant. Resembles Paquerette.

DESCRIPTION.

61. *Annie Cook, vig. T. Cook, 1888. An American seedling from Bon Stiène; delicate shade of pink, changing to white under glass in winter, vigorous and free-blooming. This variety has several good qualities, but the shape of the bud detracts from its value

62. Annie Laxton, mod. H.R. Laxton, 1869. (Sent out by Geo. Paul.)
Satiny rose, medium or large size, very full.

63 Annie Wood, mod. E. Verdier, 1866. Bright crimson with a shade of vermilion; a good autumnal rose.

Antheros. T.
 Antoine Devert. T.
 Gonod, 1880. White, tinged with pink, reverse of petals shaded salmon.

66. Antoine Ducher, Ducher, 1866. Violet-red; large, well-shaped flowers, fragrant; wood very thorny. The color is very fleeting.

67. Antoine Mouton, vig. H.R.

Levet, 1874. Deep rose, tinged with lilac, not unlike Paul Neyron; it is more fragrant and more hardy, but in color and size is below that sort.

68. Antoine Quihou, E. Verdier, 1879. Brownish-crimson.

69. Antoine Verdier, mod. H.R.

Jamain, 1871. Rose shaded with lilac, well-formed buds, no perfume; the color is muddy. This sort would not improperly be classed among the Hybrid Teas, as it resembles them in habit as well as in continuity of flowering.

70. Antonia Decarli, Levet, 1873. May be briefly described as an inferior Gloire de Dijon, from which sort it was raised.

 Apolline, vig. B. V. Verdier, 1848, Raised from Pierre de St. Cyr. Rosy-pink; large, cupped flowers. The most useful of all Bourbons for open air.

72. Archduke Charles, Laffay. Rosy-crimson, variable in color, sometimes deep marbled rose.
73. Archimède, free. T. Robert, 1856. Rosy-fawn, the centre

darker; ill-formed flowers are frequent,
A good rose when in perfection, and of
excellent habit.

74. Ardoise de Lyon, Plantier, 1865. (Sent out by Damaizin.) Violet rose, a poor color.

DESCRIPTION.

vig. H.C.

78. Augusta. N.

H.R.

81. Auguste Neumann. E. Verdier, 1870. Red, shaded with vio-

82. Auguste Oger, mod. Oger, 1850. Coppery-rose.

seau, vig. H.T.

86. Auretti, vig. 87. Aureus. T.

Rothschild, free, crimson; mildews easily.

92. Baron Chaurand, Liabaud, 1869. See Baron de Bonstetten.

vig. H.R.

ten, vig. H.R.

75. Aristide Dupuis, Touvais, 1866. Purplish-rose, a muddy hue; double or full, fragrant; of no value.

76. Arthémise, free. Moreau-Robert, 1876. Deep rose color: rather small, cup-shaped flowers, not unlike Apolline. Only worthy of a place in very large collections.

77. Arthur de Sansal. Cochet, 1855. Raised from Giant of Battles. Deep crimson.

See Solfaterre.

79. Auguste Buchner. Lévêque, 1880. Reddish-purple.

 Auguste Mie, free. Laffay, 1851. Raised from La Reine. (Madame Rival.) H. Glossy pink. One of the most tender of this type.

let.

83. Auguste Rigotard. Schwartz, 1871. Cherry-red, somewhat

H.R. 34. Auguste Vacher. T. Lacharme, 1853. Coppery-yellow. 85. *Augustine Guinoi-Guinoiseau, 1889. Flowers white, slightly tinted with flesh. Sometimes called White La France. Valuable for forc-

ing. H.C. Crimson-purple; fades very quickly.

Ducher, 1873. Coppery-yellow. 88. Avocat Duvivier. Lévêque, 1875. See Maréchal Vaillant. 89. Baltimore Belle, Feast, 1843. Pale blush, changing to

vig. P. white.

90. Baron Adolphe de Lacharme, 1862. Bright red, shaded with

91. Baron Alexandre de Gonod, 1880. Raised from Madame de Vrints. T. Delicate rose.

93. Baron de Bonstet-Liabaud, 1871. Velvety maroon, shaded with deep crimson, somewhat lighter in shade than Prince Camille, and rather smaller in size, but with a little more substance; shy in autumn, but a grand

rose. 94. Baron Gonella, vig. Guillot père, 1859. Bronzed rose, well formed, fragrant; non-autumnal.

Description.

free, H,R,

H.R.

child, mod. H.R. (Madame de Rothschild.)

H.N.

H.R.

Uxkull, free. H.R.

104. Barthélemy Levet, Levet, 1878. Bright rose. mod. H.R.

vig. Cl.T.

106. Beauty of Glazen-See Fortune's Yellow. wood, Ev.

ford, mod. H.T.

95. Baron Haussmann, E. Verdier, 1867. Dark red, large, wellbuilt flowers.

96. Baron Taylor, free. Dougat, 1879. A sport from John Hopper. Pink. Only differs from the parent in shade; it does not appear to be constant.

97. Baron de Roths-Guillot fils, 1862. Raised from General Jacqueminet. Amaranth-red. 98. Baroness Roths-Pernet, 1867. Light pink, sometimes

shaded with rose; large, or very large; cupped form, very symmetrical, with-out fragrance; the wood is short-jointed, thick, light green, armed with occasional light green thorns; one of the hardiest, but does not propagate from cuttings. A very distinct, beautiful rose, free blooming, and greatly valued, both as an exhibition and a garden sort,

99. Baronne de May-Lacharme, 1865. From Blanche Lafitte nard, mod. or free. X Sappho. White, edge of petals often tinged with pink; small size, compact form.

100. Baronne de Prailly, Liabaud, 1871. Bright red, large, very full; often does not open well.

101. Baronne de Was- V. Verdier, 1854. Deep rose; buds pretty,

senaer free. M. and quite well mossed.

102. Baronne Louise Guillot fils, 1871. Carmine-rose; large, highly scented flowers.

103. Baronne Prévost, Desprez. (Sent out by Cochet, in 1842.)
vig. H.R. Pure rose color, very large, very full, flat form; a free bloomer, fragrant, very hardy. The shoots are stout and stiff.

105. Beauté de l'Europe, Gonod, 1881. Gloire de Dijon type. Deep yellow; reverse of petals coppery-yellow.

107. Beauty of Green-Pentland, 1854. Rosy-red.

mount, vig. N. 108. Beauty of Staple-Bennett, 1879. Raised from Alba Rosea X Countess of Oxford. Red, tinged with violet, large, well-formed, prettily shaped buds, without fragrance; the color is not pleasing, too soon becoming muddy. Very subject to mildew.

DESCRIPTION.

vig. Cl.T.

vig. A, 116. Benjamin Drouet, E. Verdier, 1878. Red, shaded with purfree. H.R.

free, H.R.

mod. H.R. Blush, highly scented. 120. Bignonia, mod. T. Levet, 1872. Red.

H.R.

lieu, free. H.R.

Fr.

free, B.

dwf. Pol.

Dam.

109. Beauty of Waltham, W. Paul, 1862. Rosy-crimson, medium, free. H.R. or large size, fragrant, it has the babit of throwing out side-shoots from nearly every eye. This is still a sort to com-

mend. Daniel Boll (New York), 1837. Deep pink, double, small, well formed.

III. Belle Fleur d'Anjou, Touvais, 1872. Silvery-rose, large; rather mod. T. good.
112. Belle Lyonnaise, Levet, 1869. Raised from Gloire de

Dijon. Pale, lemon-yellow; less productive than the parent. A fine sort,

113. Belle Maconnaise, Ducher, 1870. Pale salmon-rose.

free, T.
114. Belle Normande, Oger, 1864. A sport from La Reine.

free, H.R. Silvery-rose, 115. Bennett's Seedling, Bennett. Pure white, small, double.

ple. 117. Bernard Palissey, Margottin, 1863. Red, medium size, very full, fragrant; often comes ill-formed,

sometimes is very fine.

Baron. Viellard, 1868. Raised from Jules

Margottin.

Delicate rose color.

Curtis, 1872. A sport from Abel Grand.

121. Black Prince, free, 1866. Purchased and sent out by W. Paul. Dark crimson; not considered a reliable sort, occasionally it is very fine.
122. Blanche de Beau-Margottin, 1851. Deep pink, large, loose

flowers; rather tender. 123. Blanchefleur, free. Vibert, 1846. White, tinged with blush, medium size, flat, very full, highly scented. One of the earliest to blossom; the flowers produced in great profusion.

A valuable garden rose, 124. Blanche Lafitte, Pradel, 1851. Blush-white.

125. Blanche Moreau. Moreau-Robert, 1880. White, claimed to be a true remontant.

126. * Blanche Rebatel, Bernaix, 1889. Carmine shaded with rose; flowers small, produced in clusters of forty to fifty blooms.

127. Blanche Vibert, Vibert, 1838. See Portland Blanche.

	VARIETY, HABIT	
OF	GROWTH, AND CI	

DESCRIPTION.

128. Blairii No. 2, vig. Blair. Pink, large, double; much esteemed in England as a Pillar rose. We do not value it highly for this climate.

120. Boieldieu, vig. R.

H. Garçon, 1877. (Sent out by Margottin-Belongs to Baronne Prévost fils.) type. Cherry-red, very large and full. flat form; will probably supersede Madame Boll. This is more productive. has slimmer wood, smaller foliage, stouter thorns than Madame Boll. The latter sort has five leaflets only, this has commonly seven; remembering this, it is easy to distinguish between. them.

(Silène.) T.

130. Bon Silène, free Hardy, 1839. Deep salmon-rose, illumined with carmine, medium size, semidouble, highly scented, very free flowering. This is only desirable in the bud state; for many years it has been a leading kind for forcing. The English florists have not yet discovered its value.

131. Bougère, free.

T. 1832. Bronzed pink, large and full, thick petals; one of the hardiest. An old variety, yet one of the most desirable. 132. Boule de Nanteuil, Crimson-purple, fades easily; worthless.

mod, or free. Fr. 133. Boule de Neige, Lacharme, 1867. White, small, very full, does not root from cuttings.

free, H.N.134. Boule d'Or, dwf. or Margottin, 1860. Deep yellow, large, T. mod.

very full; does not open well. 135. Bouquet d'Or, vig. Ducher, 1872. Yellow, with coppery centre, large, full.

N.

136, Bouton d'Or, mod. Guillot fils, 1866, Orange-yellow, medium size.

Ch.

137. Brennus, vig. H. Laffay, 1830. Deep red, shaded with violet. We now have almost the same shade in Cheshunt Hybrid, a more useful sort.

J. N. May, 1885. A sport from Catherine Mermet. Pure white, large, fine form, very fragrant, free bloomer, admirably adapted for forcing.

138. * Bride, free. T.

139. * Bridesmaid, mod. Moore, 1892. A sport from Catherine Mermet, described as being of a rich clear pink, superior to the parent in

(Hugh.) T.

DESCRIPTION.

H.R.

143. Cabbage.

144. Camille Bernardin, Gautreau, 1865. free or vig. H.R.

145. Camoens. H.T.

146. Canary, dwf. T.

gram, free. M.

mod. H.R.

mod. H.R.153. Carl Cers, vig. Granger, 1865. Purple-red.

155. Caroline Cook, mod.

cloudy weather, as it holds its color much better.

140. Brightness of Ches-G. Paul, 1881. Belongs to Duke of Ed-

huni, H.R. inburgh type, Vivid red, medium size.

141. * Brighton Beauty, vig. H.T. Brightred flowers produced in great profusion all summer; suitable for bedding.
Paul & Son, 1891. "Large, beautifully

shaped, bright crimson.'

See Centifolia.

Raised from General Jacqueminot. Light crimson, medium size, semi-cupped form, fragrant; does not bloom until late in the season, and then the flowers fade easily; never very productive.

Schwartz, 1881. Pale rose, base of petals vellow.

Guillot père, 1852. Canary-yellow, beau-tiful little buds, delicate habit.

147. Cannes LaCoquette, Nabonnand, 1877. Raised from La France. Salmon, with a shade of red. Much behind the parent in value.

148. Captain Christy, Lacharme, 1873. Raised from Victor mod. or dwf. H.T. Verdier X Safrano. Delicate flesh color, deepening in shade toward the centre, medium size, sometimes large, full; the foliage when young somewhat resembles Mahonia leaves. Ill-shaped flowers are not uncommon, but it is a most lovely sort when in perfection.

140. Captain John In-Laffay, 1856. Purple-crimson, color nonpermanent; dark, small foliage, in five leaflets.

150. Captain Lamure, Levet, 1870. Dark red, tinged with violet.

rsi. * Captain Lefort, Bonnaire, 1889. Large, purplish-rose, revig. T. verse of petals China rose.

152. Cardinal Patrizzi, Trouillard, 1857. Giant of Battles type. Crimson, with a tinge of purple.

154. Caroline, mod. T. Rosy-flesh, deeper toward centre; prettily formed buds.

A. Cook, 1871. Raised from Safrano. Apricot-yellow, with a shade of rose; not a valuable sort.

	VARIETY.	Нав	1T
OF	GROWTH,	AND (CLASS.

DESCRIPTION.

vig. H.R.

157. Caroline de Sansal, vig. H.R.

free. N.

H.Cl.

56s. Catherine

mod, or free.

mod. H.R.

mod, Pol.

165. Céline, dwf. M. vig. N.

mod. Beng. (Cabbage or Common

Provence.) Prov.

170. Centifolia Rosea, Touvais, 1863. Bright rose, circular, shell

mod. H.R.

156. *Caroline d'Arden, A. Dickson & Sons, 1888. Very large, full; pure soft rose color; of delightful fragrance; petals of great substance.

Desprez, 1849. (Sent out by Hippolyte Jamain.) Flesh color, deepening toward the centre; large, full flowers, flat form, often indented; subject to mildew; very hardy. An unreliable sort, but beautiful when in perfection; generally it is of better quality in September than in June.

1.8. Caroline Marniesse, Roeser, 1848. Creamy white, small and full; seven leaflets, nearly hardy. 159. Caroline Schmitt, Schmitt, 1881. Raised from Solfaterre.

Salmon-yellow, changing to pale yellow. 160, Catherine Bell, free, Bell & Son, 1877. Rose color, large, loose flowers; very poor.

Guillot. Guillot fils, 1861. Raised from Louise Odier. Rose color.

662, Catherine Mermet, Guillot fils, 1869, Flesh color, with the same silvery lustre seen in La France; large, full, well formed; not very pro-ductive, yet not a shy bloomer; very beautiful in the bud; when the flowers expand they exhale a delightful per-fume. The finest of all the Teas.

663. Catherine Soupert, Lacharme, 1879. Rosy-peach; distinct.

164. * Cécile Brunner, Mme. Ducher, 1890. A hybrid from Polyantha simplex fertilized by a Tea. Salmon-pink, with deep salmon centre; very small, full, delicately centred; admirable in bud and open flower. Robert, 1855. Crimson-purple.

166. Céline Forestier, Trouillard, 1860. Pale yellow, deepening toward the centre; the hardiest of the Tea-scented section.

167. Cels-Multiflora, Cels, 1838. Flesh color, very free-blooming.

168. Centifolia, free. Rose color, large, full, globular, fragrant, A very desirable garden variety.

169. Centifolia Cristata, Vibert, 1827. Large, pink flowers, not free. Dam. crested, fragrant and good.

form; light green wood, with numerous red thorns; foliage crimpled.

	VARIETY,	HABIT
OF		AND CLASS.

DESCRIPTION.

174. Charles Fontaine, Fontaine, 1868. Crimson, fragrant

H.R.

H.R.

182. Charles Turner, Margottin, 1869. free. H.R.

171. Charles Baltet. H. E. Verdier, 1877. Carmine red, medium R. size, full, fragrant.

172. Charles Darwin, Laxton, 1870. (Sent out by G. Paul.) free. H.R. Raised from Madame Juile Daran. Brownish-crimson, with a shaat of violet, very beautiful and distinct; midews easily.

173. Charles Duval. H. E. Verdier, 1877. Red, medium size,

175. Charles Getz, vig. A. Cook, 1871. Rosy-pink, medium sitte

full, fragrant; shy in autumn. 176. Charles Lawson, 1853. Light rose color, large, full, frag-

vig. H.Ch.

177. Charles Lefebvre, Lacharme, 1861. Claimed to have been free. (Marguerite Brassac.) H.R.

Victor Verdier. Reddish-crimson, sometimes with a shade of purple, very velvety and rich, but fading quickly large, full, thick petals, beautifully formed. There are a few thorns of light red; the wood and foliage are of light reddish-green. A splendid rose.

178. Charles Margottin, Margottin, 1864. A seeding of Julee mod. H.R. Margottin. Fiery red, shaded with crimson; large, full flowers; retains the color well; smooth, reddish wood, armed with occasional red spines; foliage slightly crimpled. An excellent, distinct rose, quite unlike the parent in habit. It doubtless comes from a natural cross of some dark sort like Charles Lefebure on Jules Margottin.

180. Charles Rouillard. E. Verdier, 1865. Pale rose, well formen.

181. Charles Rovolli, Pernet, 1875. Carmine rose, not unlike free. T. Bon Silène, from which variety, so far as our observation goes, it differs only in being inferior.

> Crimson vermilion. large, full flowers, flat form, resembling General Washington; wood armed with numerous dark-red thorns. A shy bloomer.

DESCRIPTION.

185. Cheshunt vig. H.T.

187. Christian Puttner, Oger, 1861. Deep violet-rose; an impure dwf. H.Ch.

vig. T.

free, H.R.

(Lady Warrender.)

 mod . H.R.

194. Claude Levet, H. Levet, 1872. Velvety red, fragrant.

vig. H.R.

nand, free. T.

183. Charles Verdier, Guillot père, 1866. A seedling of Victor dwf. H.R. Verdier. Pink, with a tinge of salmon; globular, full flowers; thorns dark red. A bad one to open, and fades very soon.

184. Che nédolle, vig. Bright red, large, double; shoots very H.Ch. Bright red, large, double; shoots very spiny, 5 to 7 leaflets.

Hybrid, G. Paul, 1872. Believed to be a natural cross from Madame de Tartas X Prince Camille de Rohan. Red, shad-ed with violet; large, full, slightly fragrant; very distinct. A good rose, free

in the spring, but shy in autumn.

M. Moreau-Robert, 1887. Large, full, very double; rich bronze red, changing to dark purplish-crimson; fragrant.

shade. 188. *Christine de Noue, Guillot, 1890. Very large and full, deep purplish-red, centre lake and clear purple; sweet.

189. Christine Nilsson, Lévêque, 1867. Rose color. In the way

of Madame Boutin.

190. Claire Carnot, vig. Guillot fils, 1873. Pale yellow, somewhat in the way of Céline Forestier, but more fragrant.

191. *Clara Cochet, vig. Lacharme, 1886. Clear satiny rose, with H.R. brighter centre; large and full.

192. Clara Sylvain, mod. Madame Pean. White, strongly infused

with Tea blood.

193. Claude Bernard, Liabaud, 1878. Raised from Jules Margottin. Rose color; little fragrance; not a desirable sort.

195. *Clandine Perreau, Lambert, 1887. A seedling of Souvenir d'un Ami, with full, globular, pink flowers; flower-stems stiff, blooms well displayed.

196. Clémence Raoux, Granger, 1868. (Sent out by Charles Lee.) A washed-out pink; large, fragrant flowers, quartered shape; worthless.

197. Clément Nabon-Nabonnand, 1877. Light yellow, shaded with rosy-salmon; not valuable,

198. *Cleopatra, mod. T. Bennett, 1890. Large and beautiful; pale pink; long pointed buds, produced on stiff stems.

DESCRIPTION.

Christy, H.Cl.

199. Climbing Captain Ducher & Sœur, 1881. Flowers are like the old variety, from which it is a sport, but the shoots are more slender and longer.

Johnson, vig. H.Cl.

200. Climbing Bessie G. Paul, 1878. A sport from Bessie Johnson. Like the parent, except more vigorous,

201. Climbing Charles Cranston, 1876. Not any stronger in Lefebvre, free. H. growth than the original.

Cl. 202. Climbing Countess Smith, 1875. Of no value. of Oxford, free, H. Cl.

niensis, vig. Cl.T.

203. Climbing Devo-S. J. Pavitt, 1858. (Sent out by Henry Curtis.) A sport from Devoniensis. This seems to us as productive as the old sort, and its extra vigor of growth is an advantage.

Morren, vig. H.Cl.

204. Climbing Edward G. Paul, 1870. A sport, likely to make a very useful pillar rose.

205. Climbing Jules Mar-Cranston, 1875. A sport from Jules Margottin, vig. H.Cl.

gottin. Flowers are the same as in the old sort, except being a little smaller, and for this reason it is finer in the bud state. The best of all the climbing sports; highly commended as a useful pillar rose.

Victor Verdier. H.

206, Climbing Madame Cranston, 1877. A humbug.

selle Eugénie Verdier, free. H.Cl.

207. Climbing Mademoi-G. Paul, 1877. "Light rosy-salmon; like all these climbing sports the flowers become smaller, and are produced more

208. * Climbing Niphe-tos, vig. T. Keynes & Co., 1889. A very vigorous, rapid-growing climbing sport from the well-known Tea rose Niphetos. Flowers identical with those of the type.

209. *Climbing Perle des J. Henderson, 1890. A sport from the Jardins, vig. T. well-known variety. Identical with the parent except in growth, the sport being of vigorous climbing habit.

210. Climbing Victor G. Paul, 1871. Flowers somewhat small-Verdier, free. H.Cl. er and less freely produced than in the old sort.

Verdier, free. H.Cl.

211. * Climbing Victor G. Paul, 1871. Carmine-rose.

DESCRIPTION.

(Chromatella.) N

213. Clothilde.

214. Clothilde Rolland, Rolland, 1867. Cherry-rose. H.R.

mod. H.R.

217. Colonel de Sansal, Jamain, 1874. Carmine-red. mod, H,R,

Garonne, mod. B. (Old Moss.) M.

miny, H.R.

H.R.

225. Comte de Morte-Margottin fils, 1880. Rose color, very

vig. H.Ch.

mod, or dwf. T.

mod. T.

212. Cloth of Gold, vig. Coquereau, 1843. Raised from Lamarque. Deep yellow centre with sul-phur edges; large, full flowers. A grand rose, but difficult to grow well.

Rolland, 1867. Creamy-white, centre rosy salmon.

vig. Pol. Soupert et Notting, 1890. Medium size; very double and beautifully imbricated like an aster; produced in clusters; pearly-white, with rosy-lake centres, liable to vary, producing often red and white flowers on same plant.

216. Col. de Rougemont. Lacharme, 1853. Of the Baronne Prévost

type. Light rose.

218. Comice de Seine-et-Pradel, 1842. Deep red, shaded with vio-Marne, mod. B. let. 219. Comice de Tarn-et-Pradel, 1852. Carmine-red, well formed.

220. Common Moss, free. Pale rose, very beautiful in the bud. Difficult to propagate from cuttings. None others in the class, except Crested and Gracilis, can rank with this in quality. 221. Comte A. de Ger-Lévêque, 1881. Raised from Jules Mar-

gottin. Bright rose. 222. Comte d'Eu. B. Lacharme, 1844. Raised from Gloire des Rosomanes. Bright, rosy-crimson. 223. Comte de Flandres. Lévêque, 1881. Raised from Madame

Victor Verdier. "Reddish-purple, velvety, illumined with carmine."

224. Comte de Grivel. T. Levet, 1871. Raised from Canary. Pale yellow.

mart, free. H.R. fragrant; smooth, pale-green wood.
226. Comte de Nanteuil, Quetier, 1852. Light rose, large, full flowers, sometimes with green centre.

not unlike Chenédolle. 227. Comte de Paris, Madame Pean, 1844. Flesh color, large

flowers. 228. Comte de Sembui, Madame Ducher, 1874. Salmon and rose, the base of petals coppery-yellow; large, full flowers, often malformed.

A grand rose when well grown, but too unreliable.

DESCRIPTION.

229. Comte de Thun-Ho-Lévêque, 1880. Reddish-crimson.

henstein. H.R. 230. Comte Taverna, Ducher, 1871. Pale yellow. mod. T.

Chabrillant, mod. H. R.

bantane, free. B. Odier. Blush, shaded with rose. 234. Comtesse de Ca-Lévêque, 1880. Red, shaded.

mondo. H.R.

seuil. H.R.

238. * Comtesse Horace Lévêque, 1885. de Choiseul, vig. T.

barthe, free. T.

daillac, mod. T.

Prov.

nye, mod. HR.

231. * Comtesse Anna Soupert et Notting, 1887. Golden orange Thun, vig. T. yellow; large, full, cupped, very fragrant. 232. Comtesse Cécile de Marest, 1859. Satiny-pink, never above medium size, full, fragrant; of perfect globular form; numerous dark thorns of small size; foliage dark and tough. A lovely rose.

233. Comtesse de Bar-Guillot pere, 1858. Raised from Louise

235. Comtesse de Caser-Nabonnand, 1877. Coppery-red.

236. Comtesse de Choi-Mottheau, 1878. Cherry-red, shaded with crimson, in the style of Marie Rady.

237. *Comtesse de Frig-Guillot et Fils, 1886. Delicate canary neuse, vig. T. yellow; large, full, well formed; bud long and pointed; free flowering.

évêque, 1885. Delicate rose, shaded with coppery-yellow; large, full, and finely formed.

239. Comtesse de La-Bernède, 1857. Pink shaded with carmine rose; pretty in the bud. (Syn. Desse de Brabant.)

240. Comtesse de Ludre. E. Verdier, 1879. Carmine-red.

241. Comtesse de Mu-Vibert, 1843. White, tinged with flesh; rinais, vig. M. not inclined to mildew.
242. Comtesse de Na-Guillot fils, 1871. Coppery-yellow, il-

lumined with carmine-rose; large, full, distinct and effective; highly esteemed.

243. Comtesse de Ségur. V. Verdier, 1848. Buff-white.

244. Comtesse de Sere-Lacharme, 1874. Said to be raised from La Reine, but it shows more of the Jules Margottin characteristics. Silvery-pink, often mottled; a full, finely shaped, globular flower, of medium size; slightly fragrant; wood light green, foliage darker, thorns red, seven leaflets. Not reliable about opening, but a very free bloomer, and well worthy a place in

DESCRIPTION.

distinct; of great beauty when grown under glass. 245. Comtesse Henriette Schwartz, 1881. Bright satiny-rose.

Combes. H.R.

Parc, free. T.

free. T.

koff. H.R. 250. Copper, mod. A.

vig. H.N.

N.

mod. T.

(Cornelia Cook.) T.

rington, free, Fr.

a small collection. One of the most

246. Comtesse Nathalie Soupert et Notting, 1880. Coppery-rose, de Kleist. H.R. reverse of petals lake.

247. Comtesse Riza du Schwartz, 1876. Raised from Comtesse de Labarthe. Bronzed rose, with a carmine tint; medium size, moderately full, highly perfumed.

248. Comtesse Ouvaroff, Margottin, 1861. Salmon-pink.

249. Constantin Tretia- Jamain, 1877. Cherry-red, large, double,

without fragrance. Coppery-red, very striking shade, semidouble.

251. Coquette des Alpes, Lacharme, 1867. Raised from Blanche Lafitte × Sappho. White, tinged with blush; size, medium to large; semi-cupped form, the wood is long-jointed. A very desirable white rose.

252. Coquette des Blan-Lacharme, 1871. Same parentage as ches, free or vig. H. above. White, sometimes tinged with blush; of medium size, very full, somewhat flat, but pretty; growth bushy. An improvement on Baronne de Maynard and Madame Alfred de Rougemont.

253. Coquette de Lyon, Ducher, 1870. Pale yellow; medium or small size; pretty in bud, and useful for bedding.

254. Cornélie Koch, free. A. Koch, 1855. Raised from Devoniensis. White, sometimes faintly tinged with pale yellow; very large, full; not a free bloomer. This is quite apt to come with a green centre, but is a grand rose when well grown, excelling all other white Teas,

255. Countess of Har-Cup-shaped, white flowers, double, produced in abundance.

256. Countess of Oxford, Guillot père, 1869. Raised from Victor mod. H.R. Verdier. Carmine-red, tinged with lilac, fades quickly; flowers very large and full; subject to mildew,

257. Countess of Rose-R. B. Postans, 1879. (Sent out by Wm. berry, mod. H.R. Paul & Son.) Belongs to the Victor Verdier type. Cherry-red.

DESCRIPTION.

H.Ch.

free. (Agrippina.) Beng.

(Cristata, or Crested) Provence.) M.

261. Crimson Bedder, Cranston, 1874. Belongs to Giant of dwf. H.R. Battles type. Crimson.

mod. H.R.

268, De la Grifferaie, 1846. Lilac-rose. This variety makes a vig. Mult.

270. De

272. Desprez, vig. N.

mod. H.R.

258. Coupe d'Hébé, vig. Laffay. Deep pink, medium or large size, cup-form; seven leaflets. A fine, distinct sort.

259. Cramoisi-Supérieur, Plantier, 1834. Rich, velvety crimson, double; fine in the bud. A good bed-

ding variety.

260. Crested Moss, free. Discovered on the wall of a convent near Fribourg, and sent out by Vibert, 1827. Deep, pink-colored buds, surrounded with a mossy fringe and crest; free from mildew. A fragrant, very beautiful rose.

262. Crimson Moss, free. Lee. Crimson, semi-double; poor.

M.
— Crimson Perpetual.
263. * Crimson Queen,
vig. H.R.

See Rose du Roi.
W. Paul & Son, 1890. Very large, full;
of beautiful globular form; velvety crimson, shaded with fiery red in the centre and with maroon on the outer petals.

264. Crown Prince. H. W. Paul & Son, 1880. Reddish-crimson, tinged with purple.

265. * Danmark, vig. W. Paul & Son, 1890. "Flowers large, a little deeper in color than La France,

which it resembles." 266. David Pradel, mod. Pradel, 1851. Lilac-rose, large size.

267. Dean of Windsor, Turner, 1879. Vermilion, large, full flowers.

> valuable stock on which to bud stronggrowing kinds.

269. Delille, mod. P.M. Robert, 1852. Red, tinged with lilac, flat form, fragrant, not mossy. Of no value. Luxembourg, Hardy. Crimson, not attractive.

mod. or free, M.
271. De Meaux, dwf.
(Pompon.) M.
about 1825. Pink color, small, full about 1825. Pink color, small, full

flowers. Desprez, 1838. Rose, blended with cop-pery-yellow, highly scented.

273. Deuil de Paul Fon-Fontaine, 1873. Red, shaded crimson,

taine, vig. M. large, full; not mossy; worthless. 274. Dévienne Lamy, Lévêque, 1868. Carmine-red, well formed; a good sort.

DESCRIPTION.

275. Devoniensis, mod. Foster, 1841. (Sent out by Lucombe, or free, T. Pince & Co.) Raised from Yellow Tea. Creamy-white, centre sometimes tinged with blush, very large, almost full; one of the most delightfully scented. Either this or the climbing variety should be in every collection; though neither is very productive.

276. Diana. H.R. 277. Dingee-Conard, mod. H.R. W. Paul, 1874. Deep pink. E. Verdier, 1875. Violet-crimson, il-lumined with red, medium size, com-

pact.
Peter Henderson, 1887. Scarlet -crimson, large, double, very fragrant, free bloomer.

279. Dr. Andry, free. H. E. Verdier, 1864. Rosy-crimson, large,

semi-cupped flowers, double, sometimes full, fades badly; foliage large and glossy; wood moderately smooth; thorns large and red. A better rose in England than in this country. 280. Doctor Arnal, dwf. Roser, 1848. Red-shaded with crimson;

H.R.

medium or small size; a free bloomer, subject to mildew. 281. Doctor Berthet. T. Pernet, 1878. Pale rose, deeper in centre.

282. Doctor Chalus, free. Touvais, 1871. Vermilion, shaded with H.R.

crimson; large, double or full, fragrant; a good seed-bearer. 283. Doctor Hénon, dwf. Lille, 1855. White, centre shaded, me-dium size, full; often malformed, and subject to mildew. Belongs to the old Portland group.

284. Doctor Hogg, free. Laxton, 1880. (Sent out by George Paul.) H.R. Deep violet-red, medium size. 285. Doctor Hooker, free. G. Paul, 1876. Raised from Duke of Edinburgh. Crimson, with a shade of

velvety purple.

Sulphur-yellow, large,
fine flowers; difficult to grow well.

287. Doctor Marx, mod.

Laffay, 1842. Red, tinged with violet; a

bad shade. 288. * Dr. Pasteur, vig. Moreau-Robert, 1887. Rosy-carmine, a H. T. fine clear shade; flowers globular, finely formed; free flowering; dark, rich foli-

age. 289. Doctor Sewell, H. Turner, 1879. Bright crimson, tinged with purple, large, full. A good rose.

DESCRIPTION.

(Géneral Duc d' Aumale.) H.R.

295. Duc de Magenta, Margottin, 1859. Flesh, shaded with fawn, free. T.

sier, free. H.R.

H.R.

lus, mod. H.R.

tres. H.R.

mod. M.

vig. H.Ch.

free, H.R.

lombrosa, T.

bany, vig. H.T.

290. Double Margined White, tinged with pink, flat form, full;

292. Duarte d'Oliveira, Brassac, 1880. Raised from Ophirie X vig. N. Rêve d'Or. Salmon-rose, coppery at

base, medium size, full. 293. Duc d'Aumale, free. E. Verdier, 1875. Crimson; a good sort, not unlike Maurice Bernardin.

294. Duc de Cazes, free. Touvais, 1860. Violet crimson, not a pure shade; double; numerous stout thorns.

thick petals, full. A large, good tea. 206. Duc de Montpen-Lévêque, 1876. Red, shaded with crim-

son; a good sort, 297. Duc de Rohan, free. Lévêque, 1861. Vermilion, large, well formed.

298. Ducher, free. Beng. Ducher, 1869. Pure white, well formed. Duchesse de Cam-bacérès, vig. H.R. double.
 Lilac-rose, impure color;
 double.

300. Duchesse de Cay-C. Verdier, 1864. Rosy-crimson, large, double,

301. Duchesse de Char- E. Verdier, 1875. Bright rose.

302. Duchesse d'Istrie, Portemer, 1857. Rose color, not valuable.

303. Duchesse de Morny, E. Verdier, 1863. Bright rose; erect growth; mildew. 304. Duchesse d'Orléans, Quetier, 1852. Blush, large, full; often

opens badly, and is subject to mildew. 305. Duchesse de Thu-Guillot père, 1847. White, slightly tinged ringe, free. B. with lilac; a free bloomer.

ringe, free, B.
306. Duchesse de Vallombrosa, mod. H. Margottin. Pink, generally opens badly; not valuable.

307. Duchesse de Val-Nabonnand, 1879. Coppery-red, distinct.

308. * Duchess of Al-W. Paul & Son, 1888. A sport from the well-known and popular La France, While it resembles its parent in several respects, it is quite distinct in color, being of a rich, deep, even pink tint, and the shape is more finished; it is equally vigorous, free blooming and fragrant.

DESCRIPTION.

naught, dwf. H.T.

309. Duchess of Con-Bennett, 1879. Raised from President X Duchesse de Vallombrosa (H.R.) Silvery-rose; of large, globular form; full, highly scented. Resembles La France, but the flowers are more circular, the foliage larger and better. It retains its globular form, the petals re-curving to a less extent; but La France is, notwithstanding, much the better sort.

310. Duchess of Bedford, R. B. Postans, 1879. (Sent out by W. Paul & Son.) Belongs to the Victor Verdier type. Cherry-red; very good. Dunand, 1874. (Given by the raiser to Schwartz, by him sold to Henry Bennett, who sent it out.) Belongs to Jules

Margottin type. Pink, not valuable.

312. Duchess of Edinburgh, mod. Beng. Raised from Souvenir de David d'Angers. A Bengal with Tea blood. Crimson, turning lighter as the bud expands; of good size, moderately full.

313. Duchess of Norfolk. Margottin, 1861. (Sent out by Wood.) free. H.R. Rosy-red, medium size, cup-shaped; a shy bloomer, and not valuable. 314. Duchess of Suther-Laffay, 1840. Rosy-pink, large, full; shy

land, vig. H.R. in autumn. 315. Duchess of West-Bennett, 1879. Raised from President X Marquise de Castellane. Satiny-

pink, shaded with rose, sometimes the color is carmine-rose; large, full flowers, with a faint Tea odor. The flowers are apt to be irregular and not of good finish, the buds are generally good. Subject to mildew.

minster, mod. or dwf. H.T.

316. Duke of Albany. W. Paul & Son, 1882. Crimson.

H.R.

317. Duke of Con-naught, mod. H.R. with a fiery flush; medium size, full, well formed; burns badly, very shy in autumn. In England this is one of the finest dark roses; we have seen it in

grand form at the raiser's, but it has no value for out-door culture in this country.

dwf. or mod. H.T.

318. Duke of Connaught, Bennett, 1879. Raised from President X Louis Van Houtte, Rosy-crimson,

	VARIETY	, Навіт
OF	GROWTH,	AND CLASS.

DESCRIPTION.

vig. H.R.

large, full, well formed, good in bud, almost without fragrance; the buds do not always open. A fine rose when well grown, but it will never be useful

320. Duke of Teck, vig. G. Paul, 1880. Raised from Duke of Edinburgh. Very bright crimson; not well tested in this country; we were

mod. H.R.322. Dumnacus,

vig. B.

for ordinary cultivators.

G. Paul, 1868. Raised from General Jacqueminot. Bright crimson, large, double flowers, little fragrance; foliage large and attractive. Occasionally this is very fine early in the season, but the flowers lack substance and durability of color. It is more shy in the antumn than the parent; not to be commended for general culture.

much pleased with it as seen at Cheshunt. 321. Duke of Wellington, Granger, 1864. Red, shaded with crim-

mod. Moreau-Robert, 1880. Raised from Coun-

H.R. 323. Dupe tit Thouars, Portemer, 1844. Raised from Emile Courtier. Deep red, shaded with crim-

324. Dupuy Jamain,free. Jamain, 1868. Cherry-red, with a shade of crimson; large, double, well formed, fragrant; a good seed-bearer. Were

this more full, it would be a rose of the first rank.

the class as good.

—. Du Roi. 325. Earl of field, dwf.

See Rose du Roi. Beacous-Christy, 1880. (Sent out by G. Paul.)

H.R. Cherry-rose, medium size, beautiful form.

vig. H.R.

326. * Earl of Dufferin, A. Dickson & Sons, 1887. Rich brilliant velvety-crimson, shaded with dark maroon; large, full, finely formed; delightful fragrance. A vigorous grower.

Lacharme, 1883. Fiery red, large, hand-

some, in the way of Charles Lefebvre.
328. Eclatante, free. M. Cherry-rose, buds of good form, well mossed; darker than the Common or Prolific, one of the best. Why this rose has passed out of cultivation we do not know; there are but three in

DESCRIPTION.

H.R.

free. B.

334. Edward Jesse, free. Deep rose, small, double. H.R.

vig. H.R.

H.R.

(L'enfant trouvé.)

329. *Edith Gifford, vig. Guillot fils, 1882. Large and full, flesh color; centre salmon-rose changing to white.

330. Edmund Wood, E. Verdier, 1875. Red, flowering in mod. H.R. corymbs; short, reddish wood.
331. Edward André, free. E. Verdier, 1879. Red, tinged with pur-

ple.

332. Edward Désfosses, Renard-Courtier, 1840. Carmine - rose, medium size, double, or nearly full, fragrant. An excellent rose.

333. Edward Dufour, Lévêque, 1877. Raised from Annie free. H.R. Wood. Crimson, tinged with purple.

335. Edward Morren, Granger, 1868. (Sent out by Charles Lee.) Raised from *Jules Margottin*. Deep cherry-rose, large, flat flowers, very full; sometimes comes with a green

centre. A fine sort when well grown. Schwartz, 1877. Raised from Antoine Ducher. Red, shaded with crimsonpurple, a bad color; medium or small size, fragrant.

337. Egeria, dwf. or mod. Schwartz, 1878. (Sent out by Bennett.) Raised from Jules Margottin, Salmonpink, a very lovely shade; medium size, full, semi-globular; not of good consti-tution. For experienced cultivators this is a superb sort.

338. Elie Morel, mod. Boucharlat, 1867. (Sent out by Liabaud.)

H.R. Lilac-rose, full, fragrant; green wood, with occasional red spines; the character of its growth is not pleasing. Shy

in autumn.

339. Elise Flory, mod. Guillot père, 1852. Shaded rose.

340. * Elise Fugier, vig. Bonnaire, 1890. Seedling of Niphetos, described as resembling it in form of bud, but of better habit; color rich creamy-white.

341. Elise Sauvage, dwf. Miellez, 1818. Orange-yellow, medium

size, full.

342. Elise Boelle, mod. Guillot père, 1869. White, delicately tinged with pink, medium size, full, beautiful circular form; light green wood, armed with numerous small spines. A lovely rose.

DESCRIPTION.

343. Elizabeth Vigneron, Vigneron, 1865. (Sent out by W. Paul.) Raised from Duchess of Sutherland. Bright pink, fragrant; an inferior Miss Hassard.

free. B.

344. Emile Courtier, Portemer. Bright red, a good seedbearer. 345. Emilia Plantier, Schwartz, 1878. Yellowish - white, semidouble, sometimes double, ill formed:

free, H.N.

346. Emilie Hausburgh. Lévêque, 1868. Lilac-rose, a mu ddy shade; large, full, globular form, fragrant. Its bad color destroys its use-

fulness. 347. Emily Laxton. H. Laxton, 1877. (Sent out by G. Paul.) Belongs to Jules Margottin type. Cherry-rose, good in the bud.

348. Empereur de Marco, mod. H.R. Guinoiseau, 1858. (Sent out by E. Verdier.) Belongs to Giant of Battles type. Crimson, tinged with purple. 349. Empereur de Brésil. Soupert et Notting, 1880. Magenta-red.

H.R.

350. Empress of India, Laxton, 1876. (Sent out by G. Paul.) free. H.R. Raised from Triomphe des Beaux Arts. Brownish - crimson, medium size, globular, fragrant; dark green foliage, spines light colored. Many of the buds do not open well, and it is shy in the autumn; a splendid sort when

perfect. 351. * Ernest Metz, vig. Guillot, 1888. Large, full, finely formed; 7.
352. Ernest Prince. H. Ducher & Sœur, 1881. Raised from Antoine Ducher. Red, shaded in centre.

H.Ch.

353. Etienne Dupuy, vig. Levet, 1873. Light rose color, medium size, cupped shape; thick shoots, nearly smooth; tough foliage.

H.R.

354. Etienne Levet, mod. Levet, 1871. Raised from Victor Verdier. Carmine-red; one of the finest in the type. Laffay, 1845. Crimson, tinged with pur-

355. Etna, mod. M.

ple. Not of first rank.

T. Guillot, 1881. Deep yellow; a rival for

356. Etoile de Lvon.

Perle des Jardins.

357. * Etoile d'Or, dwf. Dubreuil, 1889. Flowers medium size, citron-yellow in color in the centre, shading to pale chrome-yellow, very free flowering and pretty.

DESCRIPTION.

359. Eugène nais, mod. Beng.

(Admiral Rigney.)

363. Evêque de Nîmes, Damaizin, 1856. Raised from Giant of mod. H.R.

364. Exposition de Brie. Granger, 1865. The same as Maurice

or dwf. H.R.

366. Fabvier. Beng.

vig. Ev.

folte. H.R.

372. Ferdinand de Les- E. Verdier, 1869. See Maurice Bernar-

H.R.

T.

358. Eugène Appert, Trouillard, 1859. Belongs to Giant of Battles type. Velvety-maroon, shaded with deep crimson. A rose of superb color, but with all the family failings. Beauhar-Moreau, 1865. Crimson, a good sort,

but inferior to Agrippina. 360. Eugénie Guinoi-Guinoiseau, 1865. Red, shaded with vio-

seau, mod. M. let; very subject to mildew; poor. 361. Eugène Pirolle, vig. Red, tinged with crimson; nearly hardy; not of high quality.

362. Eugénie Verdier, Guillot fils, 1869. Raised from Victor dwf. H.R. Verdier. Silvery-pink, tinged with fawn; a lovely shade; fine in the bud. One of the best of the type.

> Battles. Crimson, illumined with fiery red; very tender and delicate.

Bernardin. 365. * E. Y. Teas, mod. E. Verdier, 1874. Carmine-crimson, high-

ly scented. Laffay. Rosy-crimson, semi-double.

367. Félicien David. H. E. Verdier, 1872. Deep rose, tinged with purple. 368. Félicité Perpétuelle, Jacques, 1828. Creamy-white, small, full.

Must be sparingly pruned. amaizin, 1866. Violet-rose. vig. Ev., 369. Félix Généro. H.R. Damaizin, 1866. Violet-rose. W Rosy-crimson. Like Eugène Pirolle.

370. Fellemberg, vig. N. Rosy-crimson. Like Eugène Pirolle.
371. Ferdinand Chaf-Pernet, 1879. Reddish-crimson, round formed, without fragrance; does not seem an addition of merit.

seps, free. H.R. din. 373. Firebrand, dwf. H. Labruyère, 1873. (Sent out by W. Paul.)

Crimson, medium size, double, good, circular form, cup-shaped, fragrant; shy in autumn. Not unlike André Leroy.

374. Fisher Holmes, free. E. Verdier, 1865. May be briefly described as an improved General Jacqueminot; the flowers are fuller and more freely produced. A very valuable sort.

375. Flag of the Union. Described by Hallock & Thorpe as "a sport from Bon Silène, being a facsimile of the parent in habit of growth

DESCRIPTION.

376. Flavescens, mod. Introduced from China about 1824. Light (Yellow Tea.) T.

377. Flora Nabonnand, Nabonnand, 1877. Canary-yellow, edged mod. T.

Yellow, vig. Bk.

free. H.R.

mod. H.R.

386. François H.R.

H.R.

free. H.R. 389. François

H.R.

free, H.R.

and freedom of bloom; the flowers are equal in size to Bon Silène. markings are not quite so distinct as in American Banner, i.e., the predominant color is rose instead of white, but each flower is regularly marked; it is a very pleasing variety.

yellow, long, fine buds, fragrant. This has been the parent of many of our

fincst yellow Teas.

with rose.

378. Fontenelle, mod. Vibert, 1849. Rose color, not mossy; poor.

379. Fontenelle. H.R. Morean-Robert. 1877. Carmine-red. 380. Fortunei, vig. Bk. Introduced by Fortune, from China, in

1850. Blush-white. 381. Fortune's Double Introduced by Fortune, from China, in

1845. Bronzed yellow.

382. * Francisca Kruger, Nabonnand, 1879. Coppery - yellow; vig. T. Shaded with peach, large and full. 383. François Arago, Trouillard, 1859. Belongs to Giant of mod. H.R. Battles type. Velvety-maroon, illu-

mined with fiery red. Resembles Lord Raglan. 384. François Courtin, E. Verdier, 1873. Cherry-red, shaded with crimson, semi-globular, full, some-

what fragrant; thorns vellowish-red. 385, François Fontaine, C. Fontaine, 1867, Rosy-crimson, fine, globular form, in the style of Sénateur

Vaisse. Gaulain. Schwartz, 1878. Deep purplish-crimson.

387. François Hérincq. E. Verdier, 1878. Red, globular form.

388. François Lacharme, V. Verdier, 1861. Rosy-carmine, tinged with deep violet-red.

Louvat. Violet-red, globular form.

390. François Levet. H. A. Levet, 1880. Cherry-rose, medium size; style of Paul Verdier.
391. François Michelon, Levet, 1871. Raised from La Reine.

Deep rose, tinged with lilac, very large, full, of fine globular form; fragrant, free-blooming. The wood and foliage are light green, erect habit, thorns not

DESCRIPTION.

age somewhat crimpled. A very distinct choice sort; excelling in June and July, when other kinds are past their prime, and also in the autumn. Premier, Trouillard, 1858. Red, shaded with crim-302. François

mod, $^{\circ}H,R$. 393. François

H.R.

free. H.R.

free or mod. H.R.

- Général Duc d'Au-See Duc d'Aumale. male.

H.Ch. not, vig.

H.R.not, vig.

400. General free. H.R.

ton, mod. H.R.

briand, free or mod. H.R.

numerous, wood long-jointed, the foli-

son.

Treyve. Liabaud, 1866. Fiery red, globular form.

394. Gabriel Tournier, Levet, 1876. In habit like Paonia. Rosy-red, large, globular flowers, free in autumn.

395. Gaston Lévêque, Lévêque, 1878. Bright rosy-crimson, large, full; spines of yellowish-green; C. Margottin style.

396. Gem of the Prairies, A. Burgess, 1865. Believed to be from Oueen of the Prairies × Madame Laffay. Rosy-red. Occasionally blotched with white; large, flat flowers, slightly fragrant.

307. General Jacquemi-Laffay, 1846. Purple-crimson.

398. General Jacquemi-Rouselet, 1853. A probable seedling from the old Hybrid China Gloire des Rosomanes. Brilliant crimson, not full, but large and extremely effective; fra-grant, and of excellent, hardy habit.

399. *General Mertchan Nabonnand, 1890. Large, good form; sky, vig. T. rosy blush; fragrant and pretty. Simpson, Ducher, 1855. Cherry-rose, medium size,

pretty form; erect growth, tender. 401, General Tartas, free. Bernède. Deep, mottled rose, sometimes tinged with buff; beautiful buds, good habit. An excellent rose.

402. General Von Molt-Bell & Son, 1873. Raised from Charles ke, mod. H.R. Lefebvre. Same style as the parent, but much inferior to it.

403. General Washing-Granger, 1861. Raised from Triomphe de l'Exposition. Red, shaded with crimson, large, very full, flat form; the flowers are often malformed, greatly lessening its value. A profuse bloomer,

and when in perfection, a very fine sort.

404. Génie de Château-Oudin. Violet-rose, very large, full, flat, or quartered shape. A bad-colored rose.

DESCRIPTION.

mod. B.

408. * George Pernet, Jos. Pernet, 1887. Flowers medium; free. Pol.

or vig. H.R.

vig. H.Ch.

Prov.

412. Gérard Desbois, vig.

dwf. (Géant des Battailles.) H.R.

vig. H.R.

Reine, mod. H.R.

Cl.T.

405. George Baker. H. G. Paul, 1881. "Pure lake, shaded with cerise, almost mildew proof; in the way of Dupuy Jamain, but distinct.'

406. George Moreau, Moreau-Robert, 1880. Raised from Paul Neyron. Bright red, shaded with vermilion, very large, full, opening

well.

407. George Peabody, J. Pentland, 1857. Probably from Paul Joseph. Rosy-crimson, medium or small size, full, well formed, fragrant. One of the best Bourbons, highly commended.

silvery-yellow, changing to peach; an

abundant bloomer.

409. George Prince, free E. Verdier, 1864. Rosy-crimson, quite smooth wood; a free blooming, excellent rose.

410. George the Fourth, Rivers. Crimson, semi-double or double;

no longer of any value.

411. George Vibert, free, Robert, 1853. Rosy-purple, striped with white, medium size.

Bright red, of good form; one of the har-diest and most useful in the class.

413. Giant of Battles, Nérard, 1846. (Sent out by Guillot père.) Deep, fiery crimson, very brilliant and rich when first opening, but quickly fades, medium or small size, full, well formed, handsome, Bourbon-like foliage, very liable to mildew. This variety and all of its type are of delicate constitutions.

414. Gigantesque, free. Odier, 1845. Deep rose, sometimes mottled; often fine but apt to come mal-

formed or somewhat coarse.

415. * Gloire Lyonnaise, Guillot fils, 1885. White, tinted yellow; large, moderately full; resembles a Tea rose in form and fragrance.

416. Gloire de Bordeaux, Lartoy, 1861. Raised from Gloire de Di-

vig. Cl. T. jon. Rose color, tinged with fawn.
417. Gloire de Bourg-la-Margottin, 1879. Vivid red, double.

418. Gloire de Dijon, vig. Jacotot, 1853. In color a combination of rose, salmon and yellow; flowers very large, very full, good globular form; the outer petals inclined to fade. A very useful rose, probably the hardiest of the Teas.

DESCRIPTION.

419.	H.R.	Ducher

tin, vig. H.R.

vig. T.

422. * Gloire des Polyan-Guillot, 1887. Bright rose with white centha, dwf. Pol.

manes, free. B.

free. H.R.

vig. H.R.

429. * Gold of Ophir.

mod. T.

lific.) M.

434. Great Western, free. Laffay. H.Ch.

Ducher, 1865. Crimson-purple, large, very full, subject to mildew. If the color were permanent, this would be a good kind.

Gloire de Paris. H. A deceit, Sent out as a new sort; it is but Anne de Diesbach.

420. * Gloire de Margot-Margottin, 1887. Brilliant scarlet; large, semi-double, globular, of good shape, elongated bud; fragrant; vigorous and free flowering. Probably the brightest rose vet raised.

421. * Gloire des Cuivres, Tesnier, 1889. Large, full, salmon-rose, tinted with canary gold; fragrant and

a free bloomer.

tre; full, nicely formed. Abundant bloomer.

423. Gloire des Roso-Vibert. Brilliant crimson, semi-double.

424. Gloire de Santenay, Ducher, 1859. Raised from General Jacqueminot. Crimson tinged with violet; out of date.

425. Gloire de Vitry, Masson, 1855. Raised from La Reine. Bright rose.

426. Glory of Cheshunt, G. Paul, 1880. Raised from Charles Lefebvre. Rich crimson, double, very effective.

427. Glory of Mosses, Vibert, 1852. Pale rose, very large, full, mod, M. flat form; not attractive in the bud; the foliage is very large.

428. Glory of Waltham. Vigneron, 1865. (Sent out by W. Paul.)

Crimson, double, fragrant.

See Ophirie.

430. * Golden Gate; vig. Dingee & Conard Co., 1891. Large, double; bud long and pointed; creamywhite, base of petals golden-yellow; free bloomer.

431. Goubault, free or Goubault, 1843. Rose, tinged with salmon; resembles Bon Silène, but in-

ferior to it.

432. * Grace Darling, vig. Bennett, 1884. Large and full, creamywhite, tinted with peach; free flowering; distinct.

433. Gracilis, free. (Pro-Deep pink buds, surrounded with delicate fringe like moss. The most beautiful of all the moss roses.

Red, shaded with crimson, double, fragrant; poor.

DESCRIPTION.

en Sisters.) Mult.

vig. H.R.

438. Gustave Thierry. Oger, 1880. Cherry-red. H.R.

or mod. H.R.

mosa or Setina.) B.

435. Gréville, vig. (Sev-Blush, tinged and striped with various shades, small or medium size: a tender variety of no value.

436. Guillanme Gille-mont. H.R. Charles Wood. Rosy-carmine. 437. * Gustave Piganeau, Pernet fils, 1800. Very large, equalling

Paul Neyron in size; full and cupped; brilliant carmine-lake; buds long.

439. Harrison Weir, free Turner, 1879. Raised from Charles Lefebvre X Xavier Olibo. Velvety-crimson, brightened with scarlet.

440. Harrison's Yellow, Harrison, 1830. Golden-yellow, medium size, semi-double; generally has nine leaflets, a freer bloomer than Persian Yellow. This is believed to be a hybrid between the common Austrian and a Scotch rose.

441. Helen Paul. H.R. Lacharme, 1881. Raised from Victor Verdier × Sombreuil. White, sometimes shaded with pink; large, globular flowers.

442. Helvetia. T.
443. * Heinrich Schultheis, vig. H.R.

Ducher, 1873. Pink, tinged with fawn.
Bennett, 1882. From Mabel Morrison and E. V. Teas. Large; good form, and very full; color pinkish-rose, sweet-scented; free blooming.

444. Henri Lecoq, dwf. Ducher, 1871. Rosy-flesh, small, beautiful buds : delicate habit.

445. Henri Ledéchaux, Ledéchaux, 1868. Belongs to Victor Werdier type. Carmine-rose.
446. Henri Martin. M. Portemer, 1862. Red, not valuable.

447. Henry Bennett, Lacharme, 1875. Raised from Charles mod. H.R. Lefebvre. Crimson, medium size, mildews, and burns badly; shy in autumn, and of no value.

448. Hermosa, mod. (Ar-| Marcheseau, 1840. Bright rose, medium or small size, double; constantly in flower, bushy habit.

449. Hippolyte Jamain, Lacharme, 1874. Belongs to Victor Vermod. H.R. dier type. Carmine-red, well built flowers; the foliage when young has a deeper shade of red than is seen in any other sort, and is also the handsomest. We find this the hardiest of the type.

	VARIETY,	HABIT	
OF		AND CLASS.	

DESCRIPTION. .

450. Homer, vig. T. Moreau-Robert, 1859. Salmon-rose, often richly mottled; a free bloomer, moderately hardy, best in the open air; the buds are very beautiful, even though of variable shades. Certainly one of

the most useful tea roses.

451. Hon. George Ban-Bennett, 1879. From Madame de St. croft, dwf. or mod. Joseph × Lord Macaulay. Red, shaded with violet-crimson, large, full flowers, and good, pointed buds; often comes malformed; highly scented, a combination of the perfumes found in the parent varieties; the wood is nearly smooth, the foliage is large, dark, and handsome. The color is not deep enough, and is too sullied to make this of value for winter-forcing,

or mod. H.R.

452. Horace Vernet, dwf. Guillot fils, 1866. Crimson, illumined with scarlet, large, double; of beautiful wavy outline; nearly smooth wood, of delicate constitution, Few roses have such lovely form as this.

453. Hortensia, free. T. Ducher. 1871. Rose color, back of petals a washed-out pink; a coarse, poor sort. Moore, 1892. See Bridesmaid.

454. * Hugh, mod. 455. Hyménée, mod. 456. Ida, mod.

T. Laffay. Pale sulphur-yellow, large, full. Madame Ducher, 1875. Pale yellow, double.

nie, free. Beng.

457. Impératrice E u g é-Béluze, 1855. Silvery-rose, medium size full, fragrant; a good variety, and would be very useful had we not La France. Subject to mildew; shows Bourbon character,

458. Innocente Pirola, Madame Ducher, 1878. Clouded white, medium size, full, well-formed buds. In the style of Niphetos, but is inferior to it in all respects save mere vigor of growth.

mod, or free, T.

450. Isabella (Bella), Cels, 1838. Creamy-white; once a popular sort.

460. Isabella Gray, free. Andrew Gray, 1854. Raised from Cloth

of Gold. Golden-yellow; has the good and bad qualities of the parent. 461. Isabella Sprunt, Rev. James M. Sprunt, D.D., 1865.

free. T.

(Sent out by Isaac Buchanan.) A sport from Safrano. Sulphur-yellow, very beautiful in the bud. Well known as one of the most useful kinds.

DESCRIPTION.

462. Jacques Lafitte, Vibert, 1846, Rosy-crimson. free. H.R.

Beng.

463. James Sprunt, vig. Rev. James Sprunt, 1858. (Sent out by P. Henderson.) A climbing sport from Agrippina. Crimson, the same color as the parent sort, but the flowers are fuller and larger. It is not so free flowering as Agrippina, but a desirable

P.M.

464. James Veitch, dwf. E. Verdier, 1865. Violet-crimson, a sullied color, medium or large size, poor shape; blooms freely, very subject to mildew.

Jaune Desprez. N. See Desprez. 465. * Jaune Nabonnand, Nabonnand, 1890. Large, full; chromevig. T.

yellow, with coppery-rose centre; free bloomer and very fragrant.

466. Jaune d'Or, dwf. Oger, 1864. Coppery-yellow, medium T. Size, full, very delicate habit. One of the sweetest in the class.

467. * J. B. Varonne, Guillot fils, 1890. Flowers large, full, varying from deep rose to bright car-

varying from deep rose to bright carmine; base of petals coppery-yellow, very sweet; buds long, finely shaped; growth vigorous; handsome foliage and free blooming. Light rose, quartered

468. Jean Bodin, free. Vibert, 1847. Light rose shape, fragrant, not mossy.

469. Jean Brosse, mod. Ducher, 1867. Rose color, medium size, cup form.

470. Jean Cherpin, free. Liabaud, 1865. Plum color, double, often semi-double, inclined to burn; fragrant

and a fine seed parent. One of the richest shades of color yet produced.

471. Jean Dalmais, mod. H.R.
472. Jean Ducher, free or mod. T.

Ducher, 1873. Rose, tinged with violet, globular, fragrant.
Madame Ducher, 1874. Bronzed-rose, large, very full globular form; not to be depended on, but very beautiful

473. Jean Goujon, vig. Margottin, 1862. Red, large or very large, full, nearly smooth wood; of sec ond quality.

474. Jean Hardy. N.

Hardy, 1859. Golden-yellow, medium size, full; an inferior Isabella Grav.

475. Jean Lambert, vig. E. Verdier, 1866. Deep red, very large, H.R. full, flat form.

when well grown,

DESCRIPTION.

H.R.

or vig. T. the petals si 478. Jean Monford, vig. Robert, 1852.

480. Jean Sisley, mod. Bennett, 1879. Raised from President X

vig. T.

vig. H.R.

H.R.

H.R.

476. Jean Liabaud, free. Liabaud, 1875. A seedling from Baron de Bonstetten. Crimson-maroon, illumined with scarlet, large, full, fragrant: a lovely rose, but shy in the autumn.

477. Jean Lorthois, free Madame Ducher, 1879. Rose, reverse of the petals silvery-pink.

Rose color, quite pretty in bud, subject to mildew, not free. 479. Jean Pernet, free Pernet, 1867. Light yellow, suffused

with salmon, beautiful buds; a fine tea, but is now surpassed by Perle des Jardins.

Emilie Hausburgh. Lilac-rose, large, very full, without fragrance; very subject to mildew. The color is bad, and the buds rarely open well; it is entirely worthless.

481. Jean Soupert, mod. Lacharme, 1875. Crimson-maroon, in the or free. H.R. way of Jean Liabaud; dark green foliage, with many thorns; not free in the autumn.

482. * Jeanne Cuvier, Nabonnand, 1888. Long, pointed bud; rich deep pink; said to force well; promising.

483. Jeanne d'Arc, vig. V. Verdier, 1848. White, an inferior La-

N. 484. * Jeannie Dickson, A. Dickson & Sons, 1890. One of Dickson's new Pedigree Seedling Roses, and described as follows: Color rosy-pink, entire margin of petals edged with silvery-pink, base of petals having a pale yellow zone. The flowers are large, full, with a very high centre which stands up prominently. Petals of great substance, large and smooth. The growth is vigorous. In this variety we add to the Hybrid Perpetual section quite a new shade of color.

485. Joasine Hanet, vig. Belongs to the old Portland group. Deep rose, tinged with violet, medium size, full, quartered shape; fragrant, very hardy, a profuse bloomer. The color and form are bad, and destroy its usefulness.

486. John Bright, mod. G. Paul, 1878. Bright crimson, medium size.

DESCRIPTION,

487. John Cranston. M. E. Verdier, 1862. Violet-red, medium size. 488. John Hopper, free. Ward, 1862. From Jules Margettin X. H.R. Madame Vidot. Bright rose with carmine centre, large and full, semi-globular; light red thorns, stout bushy growth. A free blooming, standard sort.

489. John Keynes, free. E. Verdier, 1865. Red shaded with ma-

roon. 490. John Saul, free. H. Madame Ducher, 1878. Raised from Antoine Ducher, Red, back of the

491. John Stuart free. H.R.

Mill, Turner, 1874. Raised from Beauty of Waltham. Rosy-crimson, large, full, or double; does not bloom until late; shy in the autumn.

vig. N.

492. Joseph Bernacchi, Madame Ducher, 1878. Yellowish-white, pale yellow at centre. 493. Jules Chrétien, mod. Schwartz, 1878. Belongs to the Prince H.R. Camille type. Crimson, tinged with

purple. 494. Jules Chrétien, free. Damaizin, 1870. Bright rose; not valuable.

495. Jules Finger, free. Madame Ducher, 1879. From Catherine Mermet X Madame de Tartas. Bronzed-rose; a promising sort. 496. Jules Jurgensen. B. Schwartz, 1879. Magenta-rose, 497. Jules Margottin, Margottin, 1853. Probably from La Reine.

free. H.R.

Carmine-rose, large, full, somewhat flat, slight fragrance; five to seven leaflets, foliage light green, and some-what crimpled; wood armed with dark red thorns; free flowering and hardy. 498. Julie Mansais, mod. Creamy-white, sweet scented, beautiful;

delicate in habit. 499. Julie Touvais, mod. Touvais, 1868. Satiny-pink, very large, full; fine, but unreliable.

H.R.

500. Julius Finger, mod. Lacharme, 1879. From Victor Verdier X Sombreuil. Salmon-pink, in the style of Captain Christy; a promising

501. King of the Prai- Feast, 1843. Pale rose. ries, vig. P.

502. King's Acre. H.R. Cranston, 1864. Vermilion. 503. * Kronprinces Speth, 1887. A sport from Souvenir de la Malmaison; flowers milk-white, tinted with sulphur-yellow.

sin Victoria, vig. B.

DESCRIPTION.

H,T

vig. H.T.

or vig. T.

mod. H.R. very large. 512. La Nuancée, mod. Guillot fils, 1875.

free. T.

H.R.

H,Cl.

504. La Brillante, mod. V. Verdier, 1862. Bright crimson, a clear shade, large, double, fragrant; a free bloomer.

505. La Fontaine, free. Guinoiseau, 1855. Red, tinged with violet.

506. La France, mod. Guillot fils, 1867. From seed of a Tea rose. Silvery-rose, changing to pink, very large, full, globular; a most constant bloomer, and the sweetest of all If the buds remain firm, by pressing gently the point and blowing into the centre, the flowers will almost invariably expand. An invaluable sort. 507. * La France of '89, Moreau-Robert, 1889. Flowers very large; brilliant red, buds long. Very free flowering.

508. La Grandeur, free Nabonnand, 1877. Violet-rose, very

large, full. 509. La Jonquille, mod. Ducher, 1871. Raised from Lamarque.

Jonquil-yellow, semi-double, sometimes single; medium or small size.

510. La Lune, mod. 7. Nabonnand, 1878. Creamy-yellow, deeper colored in centre, medium size, large petals, semi-double.

511. La Motte Sanguin, Vigneron, 1869. Carmine-red, large or

Blush, tinged with fawn, medium size, full.

513. La Princesse Véra, Nabonnand, 1878. Flesh, bordered with coppery-rose, full, well formed; a dis-

tinct, good sort.

514. La Reine, free or Laffay, 1839. Glossy-rose, large, full, vig. H.R. semi-globular form, somewhat fragrant; the foliage slightly crimpled, five to seven leaflets. A very hardy, useful rose, though no longer "the queen."

515. La Rosière, free. Damaizin, 1874. Belongs to the Prince Camille type. Crimson; the flowers are identical in color and form with Prince Camille, but seem a little fuller, and are more freely produced; the habit of growth, too, seems somewhat stronger; it may usurp the place of its rival.

516. La Saumonée, vig. Margottin, 1877. Belongs to the Jules Margottin type, Salmon-rose, medium size; non-autumnal.

DESCRIPTION.

519. La Tulipe, mod. T. Ducher, 1870. Creamy white, tinted with

elles, free. Dam.

524. Lady

free. H.Ch. art, vig. H.R.

526. Lady Sheffield. H. W. Paul & Son, 1881. Cherry-red.

H.Ch. 528. Lady Warrender, See Clara Sylvain.

Beng. 529. Lælia. H.R.

jaunes, free. N.

532. Laneii. M.

mod. H.R.

517. La Souveraine, vig. E. Verdier, 1874. Rose color, large flowers, semi-double or double, cupped form; inferior.

518. La Sylphide, free. Laffay. Blush, with fawn centre, very large, double.

carmine, semi-double, 520. La Ville de Brux-Vibert, 1836. Rose color, large, full, flat;

branching habit.

521. * Lady Arthur Hill, A. Dickson & Sons, 1890. Large, full, vig. H.R. symmetrical; lilac-rose; distinct and

fine. An abundant bloomer. 522. * Lady Castlereagh, A. Dickson & Sons, 1888. Large and full, vig. T. Soft rosy-yellow with rose color pre-

dominating on the margins of the petals; robust branching habit; foliage handsome.

523. Lady Emily Peel, Lacharme, 1862. From Blanche Lafitte mod. or free. H.N. × Sappho. White, tinged with blush. Fordwick, Laffay, 1838. Deep rose, cup-shaped.

525. * Lady Helen Stew- A. Dickson & Sons, 1887. Bright crimsonscarlet; large, full, and of perfect form, produced on long, stiff stems, highly perfumed; distinct and fine.

527. Lady Stuart, free. Portemer, 1852. Pink, changing to blush;

five to seven leaflets.

Crozy, 1857. See Louise Peyronny.

530. Lamarque, vig. N. Maréchal, 1830. White, with sulphur centre. sometimes pure white, very large, full, somewhat fragrant, generally seven leaflets. A superb climbing rose, quite too much neglected.

531. Lamarque à fleurs Ducher, 1871. Pale yellow, medium size, in the style of the former sort, but inferior in all respects.

Laffay, 1854. (Sent out by Lane & Son.) Red, good foliage, with five leaflets; not subject to mildew. Propagates

with great difficulty from cuttings. 533. L'Eblouissante, Touvais, 1861. Rosy-crimson, very large, double.

DESCRIPTION.

Carmel, vig. H.R.

R.

537. Le Mont mod.

dwf.

mask.) Dam.

or vig. H.R. 543. Léopold Haus-Granger, 1863. Belongs to Jacqueminot

free. H.R.

mod. B.

free or mod, H.R.

M.

Pol.

H.R.

H.R.

534. L'Espérance, free Fontaine, 1871. Cherry-red, large, full, flat form, fragrant.

535. L'Enfant du Mont-Cherpin, 1851. (Sent out by Ducher.) Violet-rose, a muddy shade, large, full, flat form, fragrant, red spines; inclined to mildew.

536. Le Havre, mod. H. Eude, 1871. Vermilion, be autifully formed.

> Blanc, Ducher, 1869. Pale lemon-yellow, growing lighter as the flowers expand; good in the bud.

538. Le Nankin, mod. or Ducher, 1871. Pale yellow, shaded coppery-yellow, pretty in the bud state: rather delicate habit.

539. Le Pactole, dwf. or Madame Pean. From Lamarque X Yellow Tea. Very pale yellow, beautiful buds.

540. Le Rhône, free or Guillot fils, 1862. Raised from General facqueminot. Vermilion, tinged with crimson, large, well formed.

541. Leda. (Painted Da-Blush, edged with lake.

542. Léon Renault, free Madame Ledéchaux, 1878. Cherry-red, very large, full; promises well.

type. Deep violet-red, a bad color. burgh, free. H.R. type. Deep violet-red, a bad color. 544. Léopold Premier, Vanassche, 1863. Belongs to Jacqueminot type. Deep red, shaded crimson, thorns not very numerous; a good sort

but not free in the autumn. 545. Letty Coles, free. Keynes, 1876. A sport from Madame Willermoz. White, with pink centre. 546. Leveson Gower, Béluze, 1846. Deep rose, tinged with

salmon, the flowers are of the same character as Malmaison; mildews very badly.

547. Lion des Combats, Lattay, 1851. Violet-rose, double, subject to mildew; worthless.

548. Little Gem, dwf. W. Paul, 1880. Crimson, very small, full; a miniature sort.

549. * Little Pet, vig. Small white flowers; very free flowering.

550. Lord Beaconsfield. Schwartz, 1878. (Sent out by Beanett.) Crimson, large, well formed; fades badly.

551. Lord Clyde, mod. G. Paul, 1863. Rosy-crimson, large, double; subject to mildew.

DESCRIPTION.

free or mod. H.R.

H.R.

H.R.

free, H.R.

free. H.R.

dwf, or mod. H.R.

564. Louise de Savoie, Ducher, 1855. mod. T.

565. Louise Odier, vig. B.

566. Louise Peyronny,

mod. (Lælia.) H.R.

552. Lord Macaulay, 1863. (Sent out by W. Paul.) Fiery crimson, much the color seen in Charles Lefebvre, large, double, well formed, fragrant; this is still a good rose.

553. Lord Palmerston, Margottin, 1853. Carmine-red, tinged with vermilion, double, well formed; bushy habit, light green wood and foliage, a few light -colored spines. A

good garden rose.

554. Lord Raglan, mod. Guillot père, 1854. Raised from Giant of Battles. Burgundy-crimson, a lovely shade; tender and shy in autuma.

555. Louis XIV., dwf. Guillot fils, 1859. Raised from General Jacqueminot. Rich crimson, double;

a beautiful shade.

556. Louis Barlet, free. Madame Ducher, 1875. Pale yellow, tinged with fawn.

557. Louis Chaix, dwf. Lacharme, 1857. Raised from Giant of Battles. Crimson.

558. Louis Doré, mod. or Fontaine, 1878. Red, large, full; little or no fragrance, bushy growth; free in autumn.

559. Louis Philippe, mod. Crimson; an inferior Agrippina.

560. Louis Richard, free. Madame Ducher, 1877. Coppery-rose, the centre sometimes deep red : coarse and poor.

561. Louis Van Houtte, Granger, 1863. Red, tinged with crimson, reddish thorns; not of first quality. 562. Louis Van Houtte, Lacharme, 1869. Said to be from Charles

Lefebvre. Crimson-maroon, medium size, sometimes large, full, semi-globular form; large foliage, fewer thorns than most other dark roses, highly perfumed. This is a tender sort, but it is very free blooming, and decidedly the finest crimson yet sent out.

563. Louis d'Arzens, Lacharme, 1861. White, tinged with mod. or free. H.N. blush; superseded by Coquette des Blanches.

Pale yellow, beautiful buds; much like Le Pactole.

Margottin, 1851. Bright rose, medium size, full, well formed, hardy. Lacharme, 1851. Raised from La Reine.

Silvery-rose.

DESCRIPTION.

- 567. * Luciole, vig. T.
- H.R.

- 573. Mme. Alboni, dwf. V. Verdier, 1850. Pink, very large, very
- rière, free or vig. H.N.
- 576. Mme. Rougemont, mod. H.N.

Guillot, 1886. Carmine-rose, tinted with saffron-yellow; base of petals coppery-yellow; large, long, well-shaped bud, very fragrant.

568. Lyonnaise, mod. Lacharme, 1871. Belongs to the Victor Verdier type, Pink, with deeper centre, fades quickly; a coarse inferior sort,

569. Ma Capucine, dwf.

Cophirie. Nasturtium-yellow, beautiful buds; a very distinct rose, which, from its delicate habit, is useless for ordinary cultivators to attempt growing.

570. Mabel Morrison, Broughton, 1878. (Sent out by Bennett.)
mod. H.R. A sport from Baroness Rothschild. Flesh-white, changing to pure white, in the autumn it is sometimes tinged with pink; semi-double, cup-shaped flowers. In all, save substance of petal and color, this variety is identical with the parent; though not so full as we should like, it is yet a very useful garden rose, and occasionally it is good enough for exhibition.

571. * Madame Baron Vigneron, 1889. Flowers large, full and veillard, vig. B. cupped; lilac-rose; fragrant.

572. Mme. Adelaide Schmitt, 1881. "Reddish-rrimson, in the style of Cardinal Petricials."

full, flat; much like Glory of Mosses, and like that kind, too full to be pretty in the bud state.

574. Mme. Alexandre Guillot fils, 1877. Salmon-rose, petals Bernaix, mod. H. T. sometimes edged with blush; has true Tea odor, though not strong. A promising variety.

575. Mme. Alfred Car-Schwartz, 1879. White, not free blooming, undesirable.

> Alfred de Lacharme, 1862. Raised from Blanche ont, mod. Lafitte × Sappho. White, tinged with pink; surpassed by Coquette des Blanches.

577. Mme. Alice Dureau, Vigneron, 1868. Belongs to La Reine type. Rose color; much like the pastype. rent, but more shy in the autumn.

DESCRIPTION.

vallée, mod. H.R.

H.R.

vig. H.R.

584. Mme. Angèle Jac-Guillot fils, 1879. Bright rose, base of quier, free or mod.

rin, mod. H.N.

bert, free. T.

champs. T. 590. Mme.

Levet.

591. Mme. Bellenden Guillot père, 1866. Belongs to Eliza Ker, mod. H.N.

Cl.T.

578. Mme. Alphonse La-E. Verdier, 1878. Carmine-red, in the style of Alfred Colomb: a promising variety.

579. Mme. Amadieu. T. Pernet, 1880. Bright rose, double, large. 580. Mme. Amélie Bal-V. Verdier, 1878. Satiny-rose, well formed.

581. * Mme. A. Nabon-Flowers pale flesh color; bud large and nand, vig. T. long; free flowering, distinct.

582. * Mme. André Du-Bonnaire, 1887. Flowers large, bright ron, vig. H.T. red, produced in great abundance.

583. Mme. André Leroy, Trouillard, 1865. Salmon - rose, large, double.

> petals coppery-yellow; a good deal the build of Catherine Mermet. I am well pleased with the appearance of this kind.

585. Mme. Anna de Besobrasoff, mod. H.R.
586. Mme. Anna de Besobrasoff, free. H.R.
587. Mme. Auguste PerSchwartz, 1878. Mottled pink, small or

medium size, well formed; a new color in this class. We are most favorably impressed with it.

588. Mme. Azélie Im-Levet, 1870. Raised from Mme. Falcot. Pale yellow.

589. Mme. Barillet Des-Bernède, 1855. White, centre creamyyellow.

Barthélemy Levet, 1879. Canary - yellow, medium size.

Boelle type. White, centre blush: very beautiful. 592. Mme. Bérard, vig. Levet, 1870. Raised from Gloire de Dijon.

Very similar to the parent; the flowers are somewhat less full, of a fresher shade, and are better in the bud state. 593. Mme. Bernard, mod. Levet, 1875. Raised from Mme. Falcot.

T. Coppery-yellow, medium sized, distinct.
594. Mme. Bernutz, free. Jamain, 1874. Satiny-rose, very large, full.

595. Mme. Boll, vig. H. Daniel Boll, 1859. (Sent out by Boyeau.) Belongs to Baronne Prévost type. Carmine-rose: a very effective garden sort; very stout shoots, five leaflets only, there are seven in Boieldieu, a kindred variety.

DESCRIPTION.

or free. (Alba Rosea, Mme. Sertot.) T.

599. Mme. Brémond, Guillot fils, 1866. Violet-red.

600. Mme. Bruel, mod. Levet, 1881. Raised from Countess of H.R.

601. Mme. Bureau, mod. White, tinged with blush,

Beng.

lan, vig. P. 605. Mme. Caro. T.

elet, vig. H.R.

dier, free or vig. H. R.

Wood, dwf. H.R.

506. Mme Boutin, mod. Jamain, 1861. Red, large, full; a good garden rose.

597. Mme. Bouton, dwf. Deep rose, mildews badly; resembles

Oscar Le Clerc.

508. Mme. Bravy, mod. Guillot, of Pont Chérin, 1848. (Sent out by Guillot of Lyons.) Creamy-white, large, full, of very symmetrical form and great fragrance; one of the most beau-tiful and useful in the class.

Oxford. Carmine-rose.

602. Mme. Caillat, free. E. Verdier, 1861. Cherry-rose.

603. Mme. Camille, vig. Guillot fils, 1871. Mushroom color, large. coarse flowers; not worthy of cultivation.

604. Mme. Caradori Al-Feast, 1843. Bright pink, semi-double.

Levet, 1880, Salmon-yellow, medium size. 606. Mme. Caroline Kus-Pernet, 1873. Pale yellow, often mottled ter, free. N. with rose; a free blooming, excellent shrub rose, one of the best bedding kinds,

607. * Mme. Caroline Pernet, Ducher, 1890. Flowers large, very Testout, vig. H.T.
608. Célina Noirey, vig.
Guillot fils, 1868. Salmon, the outer petals washed-out piuk, very large, very als washed-out piuk, very large, very als washed-out piuk, very large, very felicity shade.

full; a coarse flower, of dirty shade. 609. Mme. Charles, free. Damaizin, 1864. Raised from Safrano.

Apricot color; in the way of Mme.

Falcot. 610, Mme. Charles Crap-Fontaine, 1859. Cherry-red, medium or

large size, fragrant and good; wood armed with numerous thorns. 611. Mme. Charles Ver- Lacharme, 1864. Belongs to the Baronne

Prévost type. Rosy-vermilion, very large, a free bloomer. 612. Mme. Charles E. Verdier, 1861. Reddish-crimson, large,

or very large, nearly full; one of the freest flowering kinds, but not of first quality. Occasionally, as with General Washington, some first-rate blooms are produced.

	VARIETY,	HA	BIT
OF	GROWTH,		

DESCRIPTION.

614. Mme. Guinoiseau, free. T.

616. Mme.

H.R.

vig. H.R.

619. Mme. Cusin. T.

free or vig. T.

621. Mme. de Laboulaye, Liabaud, 1877. Rosy - pink, somewhat mod or dwf. H.R.

622. Mme. de Ridder, free or vig. H.R.

mod. T.

gent, free. H.R.

625. Mme. de Tartas, Bernède. Rose color, double. mod. T.

626. Mme. de free. T.

613. Mme. Chaté, mod. Fontaine, 1871. Cherry-red.

Chedane Lévêque, 1880. Canary-yellow, thought to be a valuable variety for the buds; probably in the style of Isabella Sprunt.

615. Mme. Chirard. H. Pernet, 1867. Rose, tinged with vermilion, full, peculiar rich scent; bushy habit, shy in autumn, many malformed flowers.

Mme. Clémence Joigneaux, vig. H.R. double, large flowers.

617. Mme. Clert, mod. Gonod, 1868. Salmon-rose.

618. Mme. Crosy, free or Levet, 1881. Raised from Souvenir de la Reine d'Angleterre. Rose color, very large.

Guillot fils, 1881. Violet-rose, tinged with yellow.

620. Mme. Damaizin, Damaizin, 1858. Creamy-white, shaded salmon, very large, double; not well formed.

> fragrant, bushy habit, long, rather small foliage, wood thickly covered with dark brown thorns; not very promising.

> Margottin, 1871. Red, shaded with violet-crimson, large, full, fine globular form; green wood and thorns. A distinct sort, fragrant and beautiful, but

fades easily.

623. Mme. de St. Joseph, Fawn, shaded salmon, large, full, highly scented; not well formed.

624. Mme. de St. Pul-Gautreau, 1871. Raised from Catherine Guillot. Rosy-vermilion tinged with lilac, large, globular; well formed.

> Vatry, Red, shaded with salmon, of good form, both in bud and flower, and well scented; a very choice old sort.

627. * Mme. de Watte-Guillot fils, 1884. Salmon-white, each ville, vig. T. petal bordered with bright rose like a tulip; buds long, fragrant.

628. Mme. Désiré Gir-Madame Giraud, 1853. (Sent out by aud, vig. H.R. Van Houtte.) A sport from Baronne Prévost. Blush-white, striped with deep rose.

DESCRIPTION.

or dwf. H.R.

636. Mme. Elise Stche-Nabonnand, 1881. goleff. T.

639. М те. Levet, dwf. H,T.

Chambeyran, mod. H.R.

641. Mme. Verdier, free or mod.

T.

son. H.R,

Janin, dwf. or mod.

629. Mme. Dévaucoux, Madame Ducher, 1874. Canary-yellow, free, T. medium size.

630. Mme. Dévert, mod. Pernet, 1876. Raised from Victor Verdier. Salmon-rose,

631. Mme. Domage, free. Margottin, 1853. Bright rose, large, loose

H.R. flowers, very thorny; not valuable.

632. Mme. Ducher, mod. Levet, 1879. Silvery-rose, medium size,

double, very good.

633. Mme. Ducher, free. Ducher, 1869. Creamy-yellow, medium size.

634. Mme. Edward Ory, Morcan-Robert, 1854. Carmine-red, of mod. P.M. Medium size, full; one of the best in the class, which is not saving much for the class.

635. * Mme. Elie Lambert, 1890. Large, globular, well formed; rich creamy-white, tinted with yellow and bordered with rosyflesh; promising.

Clear rosc, flowers said to be in the style of Niphetos.

637. Mme. Emilie Du-Levet, 1870. Salmon, sometimes pale puy, free. T. fawn, large, full; not attractive. 638. * Mme. Etienne, vig. Bernaix, 1887. Rose colored, of good size and form, free flowering; distinct.

Etienne Levet, 1878, Cherry-red, sometimes having a coppery shade, small size, pretty in the bud; slightly scented, agreeable odor.

640. Mme. Engène Gonod, 1878. Belongs to the Victor Verdier type. Rose-tinged with violet, sometimes salmon-rose.

Engène E. Verdier, 1878. Belongs to La Reinc type. Mottled rose, very large, full, globular; a promising kind.

642. Mme. Falcot, mod. Guillot fils, 1858. Raised from Safrano. Deep apricot; resembles the parent, but is somewhat larger, more double, of deeper shade, less productive, and of weaker growth.

643. Mme. Ferdinand Ledechaux, 1875. Deep rose, cupped Jamin, mod. H.R. form, highly scented.
644. Mme. Fortunée Bes- Besson, 1881. Raised from Jules Mar-

gottin. Carmine-rose.

645. Mme. François Levet, 1872. Orange-yellow, small size, buds of exquisite shape; very distinct, both in color and its peculiar fragrance.

DESCRIPTION.

tet, mod. H.N.

mod. H.N.

mod. H.R.

Luizet, vig. H.R.

vig. H.R.

Schwartz, mod. H.

net, free. H.N.

Dam.

Jamain, mod. H.R.

or dwf. M.

free. H.R.

free or vig. B.

646. Mme. François Pit-Lacharme, 1877. Pure white, small.

647. Mme. Freeman, Guillot père, 1862. White, tinged with pink.

648. Mme. Frémion, Margottin, 1850. Cherry-red, cup shaped.

fragrant. 649. Mme. Gabriel Liabaud, 1878. Belongs to the Jules Margottin type. Pink, somewhat fragrant, long foliage; a promising kind,

worthy of attention. 650. Mme. Gaillard, mod. Ducher, 1870. Salmon-yellow, large,

somewhat coarse.

T. somewhat coarse.
651. * Mme. G. Bruant, Bruant, 1888. The first of a new race of hybrids. In the bud state the flowers are long and pointed; when open, semidouble; pure white and fragrant, and produced freely in clusters at intervals throughout the summer; exceptionally hardy and vigorous; forms a handsome bush. 652. Mme. George Schwartz, 1871. Belongs to the Victor

Verdier type. Silvery-rose, fades badly and is coarse.

653. Mme. Gustave Bon-Lacharme, 1860. From Blanche Lafitte × Sappho. White, tinged with pink; surpassed by others of the class,

654. Mme. Hardy, vig. Hardy, 1832. White, large, very full, flat form, very fragrant; sometimes comes with green centre, but very beautiful when in perfection. A difficult sort to grow from cuttings.

655. Mme. Hippolyte Garçon, 1871. (Sent out by Jamain.) White, tinged with rose, very large, full.

656. Mme. Hippolyte Guillot fils, 1869. White, tinged in the centre with yellow, large, full.
657. Mme. Hoche, mod. Moreau-Robert, 1859. White, superseded

by White Bath.

658. * Mme. Hoste, vig. Guillot, 1887. Large, finely formed flowers on stout stems; color varies from ers on stout stems; color varies from straw-white to canary-yellow; vigorous and most abundant bloomer; forces well.

659. Mme. Hunnebelle, Fontaine, 1873. Light rose, large, fragrant.

660. Mme. Isaac Pereire, Margottin fils, 1880. Carmine-red, very large, full, free blooming.

DESCRIPTION.

662. Mme. Jolibois, mod. E. Verdier, 1879. Silvery-rose, medium

H.R.

bois, vig. H.R.

665. Mme. Joseph Hal-Margottin, 1859. Blush, medium size.

666. Mme. Schwartz, free.

bly, free, H.R.

gottin, mod. T.

672. Mme. Julie Weid-Soupert & Notting, 1880. Salmon-rose.

dwf. H.Ch.

H.R.

676. Mme. vig. T.

661. Mme. Jeanne Jou-Margottin, 1877. Red, medium size, non-bert, vig. B. autumnal.

size, full,

663. Mme. Joly, free. Rose color, medium size, semi-cupped, fragrant, and well formed; seems to be of Bourbon origin.

664. * Mme. Joseph Des-Guillot, 1886. Flesh-white, shaded with salmon-rose; very large, well formed,

very vigorous.

phen, mod. T.

Mme. Joseph Schwartz, 1880. From Comiesse de La-

barthe. Blush, the edge of petals tinged with carmine.

667. Mme. John Twom-Schwartz, 1881. Vermilion-red, said to have some resemblance to Alfred Co-

lomb. 668. * Mme. Jules Cam-Bernaix, 1889. Medium size; flowers bon, mod. T. fresh carnation-rose color, margined

with variable shades of carmine. 669. Mme. Jules Grévy. Schwartz, 1881. From Triomphe de H.R. l'Exposition X Madame Falcot. Sal-

mon-pink, 670. Mme. Jules Mar-Levet, 1871. Carmine-pink, tinged with lilac, very fragrant; inclined to come in rough form.

671. Mme. Julie Daran, Touvais, 1861. Violet-crifree. H.R. color; shy in the autumn. Violet-crimson, a fine

673. Mme. Knorr, dwf. V. Verdier, 1855. Rose color, medium H.R. size, full, flat form, very sweet.

-Mme. de Rothschild. See Baroness Rothschild. 674. Mme. Lacharme, Lacharme, 1872. Claimed to have been raised from Jules Margottin × Som-breuil. White, tinged with pink, medium size, full or very full, globular; does not open well, and is shy in the autumn. Of bushy growth, and quite hardy.

675. Mme. Laffay, free. Laffay, 1839. Rose color, large, double, cupped form, red spines; surpassed by many others of the same shade.

Lambard, Lacharme, 1877. Rosy-salmon, deepening toward the centre, the color is variable, sometimes being a rosy-flesh: the

DESCRIPTION.

677. M me. L. mod. P.M.

H.R.

Cl.T.

mod. H.T.

icques, vig. H.R.

dine, dwf. or mod. H.R.

que, mod. H.R.

688. Mme. Bianchi. H,R.

dwf. H.R.

flowers are large, very full, and good. This variety is not so refined as many others, but is of excellent habit, free blooming qualities, and is to be considered one of our most useful Teas. Landeau, Moreau-Robert, 1873. Red, medium size,

full; not valuable.

678. Mme. Laurent, vig. Granger, 1871. Cherry-red.

679. Mme. Léon de St. Levet, 1875. Pale yellow, very fragrant, Jean, mod. T. poor form.

680. Mme. Levet, vig. Levet, 1869. Raised from Gloire de Dijon. Very much like the parent, but inferior to it.

681. Mme. Lilienthal, Liaband, 1878. Bright rose, tinged with salmon.

682. Mme. Loeben Sels, Soupert & Notting, 1879. Silvery-white, shaded with rose, large, full, somewhat flat form.

683. Mme. Louis Car- Fontaine, 1859. Rosy-crimson, double, free in autumn; not of first quality.

684. Mme. Louis Dona-Gonod, 1877. A sport from Countess of Oxford. Nearly the shade of Eugénie Verdier; poor.

685. Mme. Louis Henry, Mme. Ducher, 1879. Pale yellow, fravig. N. grant; in the way of Solfaterre.

686. Mme. Louis Lévê-Lévêque, 1873. Belongs to the Jules Margottin type. Carmine-rose, large, very full, somewhat flat form, slightly fragrant; blooms late in the season, but is shy in the autumn.

687. Mme. Margottin, Guillot fils, 1866. Citron-yellow, sometimes with coppery centre, large, full, many malformed flowers, fine when perfect.

Marie Guillot fils, 1881. Raised from Victor I.R. Verdier X Virginal. Blush, tinged with lilac, fragrant.

689. Mme. Marie Cirrod- C. Verdier, 1867. Salmon-pink.

de, mod. H.R. 690. Mme. Marie Roe-Lévêque, 1881. Raised from Jules Mar-

derer, H.R. gottin. Cherry-red.
691. Mme. Marie Finger, Rambaux, 1873. (Sent out by Lacharme.) Almost identical with Eugénie Verdier.

692. * Mme. Marthe du Pernet, 1889. Large, nearly double, nicely pointed centre; creamy-white, with carmine on the edges; very pretty.

DESCRIPTION.

693. Mme.

lermoz, free. T.

H,R.

H.R.

(Mademoiselle Bonnaire.) H.N.

704. Mme. Oswald Kerchove, dwf. H.N.

706. * Mme. Cochet, vig. T.

lot, vig. T.

Marthe Lévêque, 1881. Raised from Madame

d'Halloy. H.R.

694. Mme. Maurice Kuppenheim, mod. T.

shaded with apricot.

Shaded with apricot.

695. Mme. Maurin, free. Guillot père, 1853. Creamy-white, large;

not very reliable.

696. Mme. Maxime de T. Grangé, 1880. (Sent out by Vigneron.) la Rocheterie. H.R. Raised from Victor Verdier. Carmine-rose.

697. Mme. Mélanie Wil-Lacharme, 1845. Creamy-white, thick petals, large, full, little fragrance; an excellent sort for out-of-door culture.

698. Mme, Miolan Car-valho, free orvig. N. 699. Mme, Montet. H.R. Liabaud, 1880. Light piuk, large petals.

700. Mme. Moreau, mod. Gonod. Red, shaded with violet.

701. Mme, Moreau, mod. Moreau-Robert, 1872. Red, large, full.

702. Mme. Nachury, vig. Damaizin, 1873. Belongs to La Reine type. Deep rose color, fades easily, flowers very large, rather loose, fragrant.

703. Mme. Noman, dwf. Guillot père, 1867. Raised from Madame Récamier. White, sometimes with shaded centre, medium size, full, globular; foliage somewhat crimpled, wood armed with quite numerous, small spines. A rose of exquisite beauty.

de Schwartz, 1879. From a seedling of Mme. Récamier X Mme. Falcot. White, tinged with fawn, promises to be an addition of merit. It has all the characteristics of the Eliza Boelle type.

705. Mine. Pauline La-Pradel, 1852. Salmon-rose, large, full, bonté, free. T. and good in the bud; an excellent.

Philemon Cochet, 1888. Bright rose, reflexed with salmon-white, medium size.

707. * Mme. Pierre Guil-Guillot, 1888. A rose partaking of the characteristics of both Mad. de Watteville and W. A. Richardson in color; flowers large, full, finely formed, pale yellow, tinted with coppery-orange at centre, becoming paler outward; edges of petals rosy-crimson; a strong grower and free bloomer.

DESCRIPTION.

708.	Mme	. P	ierre	Oger,
•	vig.	B.		

vig. T.

gier, free. H.R.

Cochet, vig. T.

717. Mme. Scipion Co-Cochet, 1871. Cherry-rose. chet, vig. H.R.

pot, vig. H.R.

free, H.R.

Oger, 1878. (Sent out by C. Verdier.) A sport from Reine Victoria. Blush, the exterior of petals tinged with rosy-lilac, cupped form, not a free bloomer.

709. * Mme. P. Kuntz, Bernaix, 1889. Large, full, bright pink or China rose; finely formed, and frag-

rant; free bloomer.

710 Elme. Plantier, free. Plantier, 1835. Pure white, above medium size, full, flat form, seven leaflets, foliage rather small; one of the best white roses for hedges and for massing. Early in the season the flowers are produced in great abundance.

TII. Mme. Prosper Lau- E. Verdier, 1875. Red, quartered shape, not fragrant, numerous red thorns; of

second quality.

712. Mme. Récamier, Lacharme, 1853. Blush-white, medium size, well formed. The origin of this rose is unknown; probably it is the result of a natural cross with some Noisette on a Bourbon.

713. Mme. Rivers, mod. Guillot père, 1850. Blush; a pretty sort, but of unhealthy habit and quite tender.

714. Mme. Rosalie de Vigneron, 1881. Raised from General Jacqueminot. Red, tinged with lilac. 715. * Mme. Schwaller, Bernaix, 1886. Pink, large, fine; blooms

vig. H.T.

716. * Mme. Scipion Bernaix, 1887. Rosy-yellow, large and double, margins of petals wavy, beautiful glossy foliage, free flowering.

See Madame Bravy. —Mme. Sertot. T. See Madame Bravy. 718. Mme. Sophie Fro-Levet, 1876. Bright rose, nearly smooth wood; a shy autumual and not of first

quality. 719. Mme. Thévenot, Jamain, 1877. Bright red, free blooming.

720. Mme. Trifle, vig. Levet, 1869. Raised from Gloire de Cl. T. Dijon. Fawn and yellow; resembles the parent, but inferior to it in value.

721. Mme. Trotter, vig. Granger, 1855. Bright red, medium size, a free bloomer in the spring.

722. Mme. Trudeau, free. Daniel Boll, 1850. Rose, tinged with lilac, medium size, well formed, free flowering, mildews badly.

DESCRIPTION.

dier, mod. or free.

or free. Dam.

-Mademoiselle Annie See Annie Wood.

728. Mlle. Bonnaire, dwf. Pernet, 1859. Closely resembles Madame H.N.

let, mod. H.T.

730. Mlle. Cécile Ber-Guillot fils, 1871. Sulphur-yellow, method, dwf.or mod. T.

ner, mod. or dwf.

723. Mme. Victor Ver- E. Verdier, 1863. Carmine-crimson, large, full, fine, globular form, very fragrant; a superb rose.

724. Mme. Vidot, dwf. Couturier, 1854. (Sent out by E. Verdier.) Flesh color, full, well formed; a beautiful rose of delicate constitution. 725. Mme. Welche, mod. Madame Ducher, 1878. (Sent out by

Bennett.) Raised from Devoniensis X Souvenir d'un Ami. Pale yellow, the centre coppery-yellow, large and full; a very distinct Tea.

726. Mme. Zœtman, mod. Delicate flesh, changing to white, large, very full, flat form, fragrant, five to seven leaflets; a splendid white rose.

Wood. H.R. 727. Mile. Blanche Dur-Guillot fils, 1877. Raised from Madame Falcot. Flesh color, semi-double, worthless.

Noman: it is difficult to see any points of difference by which one may be distinguished from the other. 729. Mlle. Brigitte Vio-Levet, 1878. Silvery-rose, slightly tinged

with lilac; not highly scented, but quite a pleasing sort.

dium size, pretty in the bud.

731. Mile. Cécile Brün-Madame Ducher, 1880. Salmon-pink, deeper in the centre, very small, full, delicately scented; an exquisite miniature rose for floral work, opera bou-

quets, etc. 732. Mlle. Emma Hall, Liabaud, 1876. Raised from Souvenir mod. or free. H.Ch. de la Reine d'Angleterre. Carminerose, medium size, semi-globular form, fragrant; there are seven leaflets of light green color, rather crimpled, the shoots are armed with small spines of pale green. An excellent summer rose. 733. Mlle. Fernande de Damaizin, 1872. Belongs to the Victor la Forest, mod. H.R. Verdier type. Rose color, somewhat

in the way of Lyonnaise; of no value. 734. * Mlle. Jeanne Guil-Bernaix, 1889. Large, delicate coppery yellow, tinted with flesh, with base of petals orange-red.

DESCRIPTION.

735. Mlle. Julie Dymo- Gonod, 1879. Belongs to the Victor Vernier, dwf. H.R. dier type. Salmon-pink, after the style of Marie Cointet.

zeau, dwf. or mod. T.

736. Mlle. Lazarine Poi-Levet, 1876. Orange-yellow, small size, very pretty in the bud; closely re-

Dombrain, free. H.

sembles Madame Francois Ianin. 737. M11e. Marguérite E. Verdier, 1865. Belongs to La Reine type. Satiny-rose, a good sort.

738. Mlle. mand, mod. T.

Marie Ar-Levet, 1872. Canary - yellow, beautiful buds, well scented, delicate constitution.

vig. Cl, T.

739. Mlle. Marie Berton, Levet, 1875. Raised from Gloire de Diion. Pale yellow, somewhat fragrant, the most free flowering of all the seedlings from Gloire de Dijon; the flower stems are long and stout, the foliage large and lustrous. A magnificent yellow rose.

740. Mlle. Marie Chau-Besson, 1881. vet. H.R. dwf. H.R.

Raised from Baroness Rothschild. Deep rose color.

741. Mlle, Marie Cointet, Guillot fils, 1872. Belongs to the Victor Verdier type. Salmon-pink; a very beautiful sort when perfect, but most of the flowers are malformed, or open badly.

free, H.R.

742. Mlle. Marie Gonod, Gonod, 1871. Rosy-blush.

743. Mlle. Marie Rady, Fontaine, 1865. Vermilion-red, shaded with crimson, large or very large, very full, of splendid globular form, very fragrant; it has more vermilion than Alfred Colomb, making it somewhat lighter and more dull; the shoots are armed with numerous red thorns, the foliage shows considerable lustre. There is no finer exhibition sort among the red roses, and were it as constant, it would be quite as valuable as Alfred Colomb and Marie Baumann, varieties which bear it considerable resemblance. 744. Mile. Rachel, dwf. Béluze, 1860. White, pointed buds, somewhat in the style of Niphetos, but not

equal in quality to that fine sort. 745. Mlle. Thérèse Lev-Levet, 1866. Belongs to the Jules Margottin type. Salmon-rose, medium size, free blooming.

et, mod. H.R.

DESCRIPTION.

- H.Ch.

- 748. Marcelin Roda, mod. Ducher, 1872,
- 749. * Marchioness A. Dickson & Sons, 1891. "Very large, of Dufferin, vig. H.
- of Lorne, vig. H.R.
- vig. or free. H.R.

754. Maréchal free, T.

746. Magna Charta, vig. W. Paul, 1876. Pink, suffused with carmine, large or very large, full, globular; foliage and wood light green, numerous, dark spines. A fragrant, excellent variety.

747. Manetti Rose, vig. Violet-rose, small size, single, not productive; this variety, since its intro-duction from Italy, is more used for a stock on which to bud choice sorts than any other kind. It has dark, brownish wood, and always seven leaflets, sometimes nine; there need be, therefore, no difficulty in distinguishing it from other kinds.

Yellowish - white, the centre light yellow; a fairly good rose.

beautiful rosy-pink suffused with yellow at base of petals, which are reflexed." 750. Marchioness of Ex-Laxton, 1877. (Sent out by G. Paul.) eter, free. H.R. A seedling from Jules Margottin. Cherry-rose, fragrant.

751. * Marchioness W. Paul & Son, 1889. Large, full, cupped: buds long and handsome, rich and fulgent rose color, shaded with vivid carmine, remarkable for its perpetual habit.

752. Maréchal Forey, Margottin, 1863. Raised from Triomphe de l'Exposition. Reddish-crimson, shy in the autumn.

753. Maréchal Niel, vig. Pradel, 1864. Supposed to be a seedling from Isabella Gray. Deep yellow, very large, very full, globular form, delightfully fragrant, the finest of all yellow roses; it is of delicate constitution, and requires very careful treatment to produce satisfactory results. It is only adapted for culture under glass, and even then the inexperienced would do better not to attempt its culture, but use in its stead Mile. Marie Berton, Solfaterre, or, for non-climbers, Perle des Jardins.

Robert, Madame Ducher, 1875. White, the centre shaded with flesh, large or very

large, full; a fine sort,

DESCRIPTION.

free. H.R.

255. Maréchal Vaillant, Viennot, 1861. (Sent out by Jamain.) Crimson, large, full, well formed, fragrant; a fine rose, which, were it not for Maurice Bernardin, would be more useful. It is a valuable kind for large collections.

vig. H.R.

756. * Margaret Dickson, A. Dickson & Sons, 1891. "Of magnificent form; white, with pale flesh centre; petals very large, shell shaped, and of great substance; foliage very large, dark green."

757. Marguérite sac. H.R.

Bras-Brassac, 1875. The same as Charles Lefebure.

758. Marguérite de St. Amand, free. H.R.

Sansal, 1864. Raised from Jules Mar-gottin. Bright rose, very beautiful in the bud state; will give more fine blooms in the autumn than any other of the class, and it is also one of the best for forcing. It cannot be propagated from cuttings.

mod. H.R.

759. Marie Baumann, Baumann, 1863. Crimson-vermilion, suffused with carmine, large, full, of exquisite color and form, very fragrant; the wood freely covered with small light red thorns. This variety is a little lighter and brighter in color than Marie Rady, which is a shade lighter than Alfred Colomb, A rose of the highest quality and very productive; no collection can be complete with it left out. It should be given a favored position.

760. Marie Caroline de Nabonnand, 1881. Pure white.

Sartoux, T. M.

762. Marie de gogne, dwf. P.M.

763. Marie Ducher, free. Ducher, 1868. Salmon-rose, large, very

761. Marie de Blois, free. Moreau-Robert, 1852. Rose color, double, not mossy, poor.

Bour-Moreau-Robert, 1853. Bright rose, medium size.

> kind, of excellent habit. Not a refined flower, yet it is a sort worth growing.

764. Marie Guillot, mod. Gnillot fils, 1874. White, faintly tinged with yellow, large, full; of splendid form. One of the most beautiful Teas: would that it were fragrant!

DESCRIPTION.

766. Marie Louise Per-Pernet, 1876 net, mod. H.R.

767. Marie Opoix, mod. Schwartz, 1874.

free. T.

H,R,vig. T.

773. Marquis de Sanima, Mme. Ducher, 1875. Coppery-rose, in mod. T. the style of Reine du Portugal, but

vens, vig. T.

bury, mod. H.R.

lane, mod. H.R.

neries, mod. H.R.

765. Marie Jaillet, mod. Madame Ducher, 1878. Pale rose, deeper in the centre.

Raised from Baroness Rothschild, Deep violet -red, cupped form; very fragrant.

Pale yellow, almost

white, not of first quality.

768. Marie Sisley, mod. Guillot fils, 1868. Rose, tinged with salmon, sometimes coppery-rose; a distinct sort, but not reliable, and at its best is not specially attractive.

769. Marie Van Houtte, Ducher, 1871. From Madame de Tartas X Madame Falcot. Pale yellow, the edges of petals often lined with rose, well formed; of good habit, and in every respect a most charming sort. The finest of all Teas for out-door culture,

770. Marie Verdier, free. E. Verdier, 1877. Rose color.

771. * Marion Dingee, Dingee & Conard Co., 1892. Described as deep brilliant crimson, one of the brightest and richest colored Teas; flowers large, cup shaped, and borne on long, straight stems.

772. Marquis de Balbi-Lacharme, 1855. Silvery-rose, medium ano, free. B. size, full.

not so good. 774. * Marquise de Vi-Dubreuil, 1885. Bright carmine on the edges of outside petals, gradually becoming straw color at the base; distinct.

775. Marquis of Salis-G. Paul, 1879. Coppery-rose; shaded with crimson, large, globular form, distinct.

776. Marquise Adèle de Schwartz, 1876. Raised from Madame Murinais, free. H.R. Laffay. Silvery-rose; an inferior sort.
777. Marquise de Castel-Pernet, 1869. Supposed to be a seedling

from Jules Margottin. Carmine-rose, a permanent shade, very large, very full, not fragrant but effective, does not bloom until late; a valuable sort for exhibition purposes. Does not propagate from cuttings.

778, Marquise de Lig-Guénoux, 1879. (Sent out by Jamain.) Rose color, wood nearly smooth.

DESCRIPTION.

mart, mod. or dwf.

H.R. der, vig. H.R.

779. Marquise de Morte-Liabaud, 1868. Raised from Jules Margottin. Blush, well formed. A fine rose of delicate habit,

780. * Marshall P. Wil-Ellwanger & Barry, 1884. Raised from the seed of Gen. Jacqueminot. It is of vigorous growth, with healthy foliage, flowers large, semi-globular, full, well formed; color, cherry-carmine, much like a light-colored Marie Baumann, or a shade deeper than Marie Rady, and very fragrant. In wood, hardiness, and freedom of bloom. proved Alfred Colomb.

or free. H.R.

Cl. T.

784. Maurice Bernardin, vig. or free. H.R.

785. * Maurice L. de Vil-Lévêque, 1891. Large, double, fine morin, vig. H.R. form; clear bright red, shaded velvety

vig. T.

787. May Quennell, dwf. Postans, 1878. (Sent out by W. Paul & or mod. H.R.

786. * Maurice Rouvier, Nabonnand, 1890. Large, full, globular form, delicate rose veined with red; fragrant and free blooming.

> Son.) Magenta, shaded with crimson, large flowers, many of them coming imperfect; wood rather smooth, foliage

788. May Turner, mod. E. Verdier, 1874. Salmon-rose. H.R.

foliage, and form of flower, it resembles Alfred Colomb, but the scedling excels that famous variety in vigor, continues to bloom profusely long after the other Remontants are out of flower. In brief, it may be described as an im-781. Mary Pochin. H.R. Rev. E. M. Pochin, 1881. (Sent out by Cranston.) Lake, shaded with crimson,

medium size. 782. Masterpiece, mod. W. Paul, 1880. Supposed to be a seedling from Beauty of Waltham. Rosy-

crimson. 783. Mathilde Lenaerts. Levet, 1879. Raised from Gloire de Dijon. Rose color.

Granger, 1861. Raised from General Jacqueminot. Bright crimson, large, moderately full; a good free flowering sort, generally coming in clusters; the roots are very delicate, and break easily. In the spring, this is, perhaps, the most prolific of all crimson sorts.

brown.

dark.

DESCRIPTION.

789. * Medea, vig. T.

791. Mélanie

mod. H.R.

797. Mignonette, Pol.

Pol.

low, vig. T.

H.R.

W. Paul & Son, 1891. "Large, very full, buds inclined to be high centred; color lemon, with canary-yellow centre." 790. Mélanie Oger, free Oger, 1851. Yellowish-white, deeper at

centre, medium size.

Soupert, Nabonnand, 1881. White, large, very

792. Mère de St. Louis, Lacharme, 1852. Raised from La Reine. Pink, medium size.

793. *Merveille de Lyon, Pernet, 1882. Pure white, shaded and marked with satiny-rose; flowers very large, double, and of a beautiful cup shape. A seedling from Baroness Rothschild, with the same habit, but larger.

794. * Meteor, vig. H. T. Bennett, 1887. Rich dark velvety-crimson, retaining its color well; a constant bloomer, healthy, with no tendency to mildew; admirable for forcing.

795. Michael Bonnet, Guillot perc. 1864. Rose color, in the

tree. H.R. way of Madame Joly, but inferior. Bennett, 1879. From President × Management Victor Variation of Madame Victor Variation of Madame Victor Variation (Management of Management) rose, or rose shaded with coppery-red, medium size, very full, finely formed, somewhat fragrant; on account of their great fulness the flowers do not open well under glass, but they are fine in open air. A very distinct and pleasing sort; the best of the set sent out by Bennett.

Guillot fils. 1881. "Delicate rose, changing to blush, very small, double, flowering in corymbs of thirty or forty blooms."

708. Miller-Hayes, mod. E. Verdier, 1873. Reddish-crimson.

799. * Miniature, vig. Alegatière, 1884. Rosy-white, changing to white; full, sweet; in clusters.

800. * Miss Ethel Brown- A. Dickson & Sons, 1887. Bright salmonpink, shaded yellow at base of petals: free flowering.

801. Miss Glegg, free. Vibert. White, the centre often flesh color, very small, double; resembles Aimée Vibert, but is much inferior.

802. Miss Hassard, free. Turner, 1175. Raised from Marguérite de St. Amand. Pink, large, very full, sweetly scented.

DESCRIPTION.

tion, mod. B.

807, Mogador, H.R.

808. Moiré, mod. 7.

811. * Monsieur Désir, Pernet père, 1888. Large, velvety crim-

Teas, mod. or dwf. H.R.

813. Monsieur mod. H.R.

814. Monsieur Furtado, Laffay, 1863. free or mod.

815. Monsieur Jard, free, Guillot père, 1857.

B. 816. Monsieur Journaux, Marest, 1868. Brilliant red.

817. Monsieur

dwf. H.R.

803. Miss Ingram, free. Ingram, 1868. (Sent out by Turner.) Blush-white, well formed; a fine rose.

804. Miss May Paul, vig Levet, 1881. Raised from Gloire de Cl. T. Lilac-white, reverse of the

petals red."

805. Miss Tweed, free Pale yellow, semi-double; it has nine leaslets, rarely seven; Persian Yellow has seven leaslets only; remembering this, it is always a simple matter to distinguish the varieties when out of flower.

806. Modèle de Perfec-Guillot fils, 1860. Raised from Louise Odier. Satiny-rose, medium size, well

formed.

Raised from Rose du Roi, and esteemed as an improvement on that variety. It is a crimson damask which flowers in autumn.

Moiré, 1844. Fawn and rose. 809. Monsieur Alfred Vigneron, 1880. Carmine-rose. Leveau. H.R.

810. Monsieur Boncenne, free or mod. H.R. Liabaud, 1864. Very deep crimson, double, medium size; a good rose, but now displaced by Baron de Bonstetten.

vig. T. son-rose; free bloomer; a fine climber. 812. Monsieur E. Y. E. Verdier, 1874. Carmine-crimson, large, fine, globular form, highly

scented; a superb rose. Fillion, Gonod, 1876. Belongs to the Victor Verdier type. Carmine-rose, not of

first quality.

affav. 1863. Yellow, medium or small size, well formed, very full; an exquisite sort, of good habit, not nearly so much grown as it deserves. Red, tinged with

violet,

Monsieur Jules Guillot fils, 1881. Carmine-rose, cupped form.

818. Monsieur Noman, Guillot père, 1866. Raised from Jules Margottin. Rose color, often delicately mottled, beautiful globular form. Unreliable, but magnificent when in perfection.

DESCRIPTION.

810. Monsieur Thouve-Vigneron, 1880. Velvety-red, flat form. nel. H.R.820, Monthly Cabbage, Violet-rose, somewhat fragrant. 821. * Mousseleine, vig. Moreau-Robert, 1881. White, lightly marked with rose, changing to pure M. 822. Mrs. Baker, mod. Turner, 1875. Belongs to the Victor Verdier type. Carmine-red. 823. Mrs. Bosanquet, Madam Pean. Rosy-flesh, very producmod. Beng. tive. 824. * Mrs. Degraw. B. Burgess, 1875. Resembles Apolline somewhat in leaf and flower, but is more compact in growth. In color it is a rich glossy pink, very fragrant, and is a remarkably prolific and continuous bloomer. It is said to be perfectly hardy south of New York. 825. Mrs. Elliott, free. Laffay, 1840. Rose color, double, gener-H.R. ally seven leaflets; of second quality.
Laxton, 1880. (Sent out by Turner.)
Raised from Charles Lefebvre × Alfred de Rougemont, Scarlet-crimson, a splendid bright color; a very promising sort. 827. Mrs. Hovey, vig. P. Pierce, 1850. Blush, changing to white, resembles Baltimore Belle, but is hardier; a valuable climbing rose. 828. * Mrs. James Wil- A. Dickson & Sons, 1889. In form reson, mod. T. sembles Mermet; flowers deep lemonsers. yellow, tipped with rose; highly fra-grant; habit vigorous and branching; flowers carried erect on stiff stems and lasting well. 829. * Mrs. John Laing, Bennett, 1887. A seedling from François Michelon: soft pink: large and of fine form, produced on strong stems; exceedingly fragrant; one of the most valuable varieties for forcing, and flowers continuously in the open ground. 830. Mrs. Jowitt. H.R. Cranston, 1880. From Marie Rady X Duc de Rohan. Crimson, tinged with lake. 831. Mrs. Laxton, dwf. Laxton, 1878. (Sent out by G. Paul.) H.R.Raised from Madame Victor Verdier, Rosy-crimson, beautiful form. 832. Mrs. Opie, mod. T. Bell & Son, 1877. Salmon-rose.

DESCRIPTION.

833. * Mrs. Paul, vig. B. Paul & Son, 1891. "Large open flower like a camelia, with very bold, thick petals, perfectly arranged; blush-white, with rosy peach shading; very distinct. A fine autumnal rose.

834. Mrs. Pierce, vig. P. Pierce, 1850. H.R.

Blush, 835. Mrs. Standish, dwf. Trouillard, 1860. Belongs to the Giant of Battles type. Deep crimson, tinged with purple.

836. Nancy Lee, dwf. Bennett, 1879. From Alba Rosea × Ed-H.T. ward Morren. Satiny-rose, a delicate and lovely shade, medium or small size, beautiful buds, highly scented; growth slender, inclined to mildew. Were this of vigorous growth and good constitution, it would be a variety of great value.

837. Narcisse, mod. (En 1845. Yellow, an inferior Monsieur fant de Lyon.) T. Furtado. fant de Lyon.) T. Furtado. 838. Nardy Frères, free. Ducher, 1865. Supposed to be a seedling

H.R.

from Madame Boll. Violet-red, a very distinct variety, but of too perishable a color to have any value. Blush, loose flowers: not of value.

839. Nina, mod. T. 840. Niphetos, dwf.

White, sometimes tinged with pale yellow, long, large buds, the petals thick and durable. A very beautiful variety for growing under glass, it is entirely unsuited for growing in open

841. Nuits de Young, Laftay, 1851. Purplish-red, a sullied shade.

mod. M.842. * Oakmont. H.R.

Comley. "Deep bright rose color, in the way of Paul Neyron, but blooms much more freely; delightfully scented; continues in bloom all summer, and is one of the best varieties for very early winter forcing."

H.R.

843. Odéric Vital, vig. Oger, 1858. A sport from Baronne Prévost. A little lighter in color than the parent, the habit is the same.

844. Odorata, free. (Blush Tea.) T.

Of Chinese origin, brought to England in 1810. Carmine, fading to blush, large flowers, somewhat loose but good in the bud; one of the most fragrant. The larger number of the Teas are descendants of this sort.

DESCRIPTION.

free, Fr.

Prov. -Old Yellow Tea. T. See Flavescens.

H.N

free. H.R.

849. Ophelia, mod. 850. Ophirie, vig. N.

Louis, free. H.R.

852. Oscar Leclerc, mod.

855. Pallida. P.

vig. H.R.

Pol.

845. Œillet Flamand, Vibert, 1845. White, striped with rose, like a variegated carnation, double flowers, of medium size; the foliage is very dark.

846. Œillet Parfait, mod. Foulard, 1841. Blush, striped with violet rose; inferior to the preceding sort.

847. Olga Marix, mod. Schwartz, 1873. Rosy-flesh, changing to

white; inferior. 848. Olivier Delhomme, V. Verdier, 1861. Brilliant red, large,

well formed. T. Ducher, 1873, Yellow, medium size, full. Goubault, 1844. Nasturtium-yellow, suf-

fused with coppery-red, medium size, double; a very distinct sort, but very shy, 851. Oriflamme de St. 1858. Raised from General Jacqueminot.

Brilliant crimson : resembles the parent, but is inferior to it. Robert, 1853. Red, tinged with violet, in

the way of Madame Bouton.

853. Oxonian, mod. H. Turner, 1875. Belongs to the Victor Verdier type. Rosy-red, somewhat fragrant, large size; the only one of the type that has perfume.

854. Pæonia, free. H.R. Lacharme, 1855. Red, very large or

large, full, fragrant, a free bloomer; bushy habit, dark lustrous foliage, numerous pale red thorns. A fine garden rose, but not quite up to exhibition standard.

Feast, 1843. Blush, much resembling Superba.

856. Panache d'Orléans, Dauvesse, 1854. A sport from Baronne Prévost. Identical with the parent sort, except that the flowers are striped with rosy-white. It is not constant, soon running back to the original.

857. * Papa Gontier, vig. Nabounand, 1883. Rose, shaded yellow, T. reverse of petals crimson; large, semidouble, fragrant, free growing, profuse flowering; very popular for winter forcing.

858. Paquerette, mod. Guillot fils, 1875. Pure white, about one inch in diameter, full, prettily formed, recalling blossoms of the double flowering cherry; there are five to seven leaflets, the growth is slender.

DESCRIPTION.

859. Paul Jamain, free. Jamain, 1878. Belongs to the Charles Lefebvre type. Crimson, slightly tinged with violet-red. Very similar to Charles Lefebure.

860. Paul Joseph, free. Portemer, 1842. Violet-red.

B. 861. Paul Nabonnand, Nabonnand, 1877. Satiny-rose. free.

H.R.

862. Paul Neyron, vig. Levet, 1869. From Victor Verdier X Anne de Diesbach. Deep rosc, very large, very full, somewhat fragrant, free blooming; the wood is nearly smooth, the foliage tough and enduring, somewhat tender, the growth is very upright. The largest variety known, and a very desirable sort for the garden.

863. Paul Perras, vig. H. Pale rose, large, full. Ch.

864. Paul Ricaut, free or Portemer, 1845. Carmine-crimson, mevig. H.Ch.

dium size, fine globular form: one of the most beautiful summer roses. 865. Paul Verdier, vig. C. Verdier, 1866. Carmine-red, large, H.Ch. globular flowers, well built; a splendid

sort. 866. Pauline Lansezeur, Lansezeur, 1855. Red, shaded with violet-crimson, medium size, free bloom-

mod. H.R.

867. Pauline Talabot, E. Verdier, 1873. Carmine-red.

free. H.R. 868. Peach mod. H.R.

Blossom, W. Paul, 1874. Belongs to the Jules Margottin type. Mottled pink, a fine color, many imperfect blooms; there are others of this type like Comtesse de Serenye, Egeria, and Marguérite de St. Amande, of nearly the same shade,

869. Pearl, dwf. H.T.

that are greatly superior.
Bennett, 1879. From President X Comtesse de Serenye. Rosy-flesh, small, full, pretty buds, with a decided Bourbon fragrance; growth very slender, subiect to mildew.

870. * Pearl Rivers, vig. Dingee & Conard Co., 1890. Large. ivory-white, shaded with clear rose; fragrant and beautiful.

871. Penelope Mayo, Davis, 1873.

avis, 1873. (Sent out by Turner.) Carmine-red, full, well-shaped flowers.

mod. H.R.

DESCRIPTION.

plaisir, mod. T.

ches, free. H.N.

Pol.

mod. H.N.

878. Perle de Lyon, mod. Ducher, 1872. Yellow with saffron cen-

879. Perpetua' Moss, free. M.

A.

872. Perfection de Mon-Levet, 1871. Yellow, a good Tea, which may be described as an improved Canary; like that sort it is delicate,

873. Perfection des Blan-Schwartz, 1873. White, a good sort, but inferior to Coquette des Alpes.

874. Perle d'Angers, Moreau-Robert, 1879. Blush. mod. B.

875. * Perle d'Or, mod. Dubreuil, 1883. Nankeen-yellow with orange centre; very dwarf, branching habit, blooming in clusters of twenty to thirty flowers.

876. Perle des Blanches, Lacharme, 1872. From Blanche Lafitte mod. H.N. X Sappho. White, inferior to others of the type.

877. Perle des Jardins, Levet, 1874. Canary-yellow, large or very large, full, well formed, stiff stems, very free; the leaflets are five to seven in number, deeply serrated, very dark and glaucous. A superb sort for forcing, and fine also in open air.

> tre, large, full, very fragrant; funy as fine in quality as the preceding, but so subject to mildew as to be worthless to ordinary cultivators.

White Laffay. A sport from White Damask.

White, tinged with flesh, flowers in clusters, medium size, semi-double or double, coarse form; but little mossed, unattractive either in bud or flower; the name is a deception, as it very rarely blooms in the autumn. Greatly inferior to White Bath, and also Comtesse de Murinais.

880, Persian Yellow, free. Introduced from Persia by H. Willock, in 1830. Bright yellow, small, nearly full, well formed; small foliage, faintly scented like the sweetbrier: seven leaflets; the wood is chocolate brown in color, armed with numerous brown thorns; it is the finest of all hardy yellow roses. It must not be closely pruned; it is desirable to grow more than one plant, and by pruning one this year, in the usual way, and the other the next, annual crops of flowers may be had. Does not grow from cuttings.

VARIETY,	HABIT
OF GROWTH,	

DESCRIPTION.

881. Pierre Guillot, mod. Guillot fils, 1879. Deep red, fragrant and

good.

882. Pierre Notting, free. Portemer, 1863. Deep crimson, tinged with violet, large, or very large, fine, globular form, highly scented; the most beautiful dark rose, after Louis Van Houtte.

883. Pierre Seletzki. H. Levet, 1872. Violet-red.

H.T.

884. * Pink Rover, vig. W. Paul & Son, 1890. Flowers very pale pink, deeper in the centre, large, full and expanded; exceedingly sweet; buds long, clean, and handsome. Of

886. Portland Blanche, free. Dam.

887. Préfet Limbourg, Margottin fils, 1878. Crimson, tinged vig. H.R.

H,R.

892. President Schlach-E. Verdier, 1877. ter, free or vig. H. tinged with violet.

893. President dwf. H.R.

mod. H.R.

885. Pius the Ninth, vig. H.R. semi-climbing habit. Semi-climbing habit. H.R. semi-climbing habit. H.R. semi-climbing habit. Semi-climb ing, very hardy.

Vibert, 1836. White, tinged with flesh, large, very full, flat form; often comes with green centre.

with violet, double, or full; a rose of fine color.

888. President. T. 1860. (Sentout by w. raun.)
889. President Léon de Lacharme, 1875. Raised from Charles
St. Iean. mod. H.R. Lefebvre. This is simply an inferior Charles Lefebure, not worthy of cultivation.

890. President Lincoln, Granger, 1863. Vermilion red, tinged with crimson, the flowers are much like General Washington, but inferior in quality to that variety, the habit of growth is stronger.

801. President Mas, free. Guillot fils, 1865. Raised from Triomphe de l'Exposition, Red, shaded with crimson, often comes with bad cen-

Reddish - crimson.

Thiers, Lacharme, 1871. Belongs to the Victor Verdier type. Carmine-red, one of the darkest colored in the type.

804. Pride of Waltham, W. Paul, 1881. Belongs to the Victor Verdier type. Flesh color, shaded with rose, a deeper shade than Eugénie Verdier.

DESCRIPTION.

- H.R.
- Rohan, free. H.R.
- free. H.R.
- free or mod. H.R.
- H.R.
- mod. H.R.
- d'Aremberg.
- vig. M.
- Strozzio, free. H.R.
- mod. H.R.
- de la Trémouille, mod. H.R.
- mod, H,R.

- 895. Prince Arthur, free. Cant, 1875. Belongs to the General Jacqueminot type. Deep crimson, smaller but better formed than Jacqueminot.
- 806, Prince Camille de E. Verdier, 1861. Very deep velvetycrimson, large, moderately full, habit somewhat spreading, shy in autumn. A good rose, of splendid color.
- 807. Prince de Portia, E. Verdier, 1865. Vermilion, large, full, well formed, one of the most fragrant, somewhat subject to mildew. A splendid variety.
- 898. Prince Humbert, Margottin, 1867. Crimson, large, well formed, excellent.
- 899. Prince Léon, mod. Marest, 1852. Rosy-crimson, stiff, short wood,
- 900. Prince of Wales, Laxton, 1869. (Sent out by G. Paul.) From Louise Peyronny X Victor Verdier. Pink, very large, double.
- 901. Prince Paul Demi-Guillot fils, 1873. Satiny-rose.
- doff, free. H.R. 902. Prince Prosper Soupert & Notting, 1880. Salmon-red.
- 903. Princess Adelaide, Laffay, 1845. Pale rose, medium size, not very mossy, but good in bud and flower; dark foliage, which is often variegated.
- 904. Princess Alice, vig. W. Paul, 1853. Raised from Luxembourg. Violet-rose, not well mossed.
- 905. Princess Antoinette E. Verdier, 1874. Red, large, full, well formed; slightly in the way of Marie Rady.
- 906. Princess Beatrice, W. Paul, 1872. Belongs to the Victor Verdier type. Pink, globular flowers; fades quickly and is not desirable.
- 907. Princess Charlotte Lévêque, 1877. Pale-satiny-rose, medium size, full, somewhat fragrant; not of first quality, but very free blooming and therefore of some value.
- 908. Princess Christian, W. Paul, 1870. Salmon-rose, does not open well; worthless.
- 909. Princess Clemen-Vibert, 1842. A beautiful white rose, much resembling, but not equalling. Blanchefleur.
- 910. Princess Louise, Laxton, 1869. (Sent out by G. Paul.) mod. H.R. Raised from Mme. Videt × Virginal. Blush, medium size, good.

DESCRIPTION.

toria, vig. H.Cl.

911. Princess Louise Vic-Knight, 1872. Salmon-pink, medium size, fine globular form, not fragrant; dark foliage, wood nearly smooth. A splendid rose.

912. Princess Marie Dol-Gonod, 1878. Raised from Anne de Diesgorouky, free. H.R. bach. Satiny-rose, very large.

913, Princess Mary of Granger, 1866. (Sent out by G. Paul.) Cambridge, mod. H. From Duchess of Sutherland X Jules Margottin. Salmon-pink, often mot-tled; a fine sort, now surpassed by Countess of Serenye and Egeria.

914. Princess Mathilde, Liabaud, 1860. (Sent out by Jean Pernet.)
Burgundy-crimson, a lovely shade, medium size, double, never full. It seems as though this must be the founder of the Baron de Bonstetten type.

free. H.R.

915. Princess of Wales, W. Paul 1864. Crimson, cupped form, double.

916. Professor Koch, E. Verdier, 1861. Cherry-red, medium free, H.R.

size, double, erect growth, liable to mildew. Origin and raiser unknown. Salmon-rose,

917. Pumila, free. N.

seeming to have Safrano blood, very free. 918. *Puritan, vig. H. T. Bennett, 1886. Flowers large, often badly formed; pure white, sweet; fine

foliage.

919. Purpurea Rubra, Purplish-red, a bad color. mod. M.

Eleanor, W. Paul, 1876. Pink, tinged with magenta-red, large, full, well formed; wood and thorns light green. A very beautiful rose when perfect, but sparsely produced and not reliable,

920. Queen mod. or free, H.R.

921. Queen of Ayrshires, Rivers. Violet-crimson, semi-double, small.

vig. Ay.

dwf. B.

922. Queen of Bedders, Noble, 1877. Raised from Sir J. Paxton. Crimson, medium size, very full; a free flowering sort. The color is not very durable.

923. Queen of Bourbons, Mauger, 1834. Fawn and rose, medium or small size, fragrant, very free, of

924. Queen of Queens. W. Paul, 1882.

delicate habit.

Paul 1882. "Pink with blush edges, large and full, and of perfect form; grows and flowers freely."

 $\check{H},R.$ 925. Queen of the Bel-White, small, double.

gians, vig. Ay,

DESCRIPTION.

ries, vig. P.

927, Queen of Waltham, W. Paul, 1875. Cherry-red, of good size, mod. H.R.

929. Queen

930. * Rainbow, vig.

H.R.

936. Red H.Cl.

—Red Safrano, T.

038. Reine Blanche, mod. Damaizin, 1868. Raised from La Reine.

mod. T.

vig. N.

free. H.R.

943. Reine du Midi, free Robert, 1868. or vig. H.R.

026. Queen of the Prai- Feast, 1843. Rosy-red, frequently with white stripe, medium or large size, double; foliage large, five leaflets, quite deeply serrated.

very fragrant, does not bloom till late;

a variety of fair quality.

928. Queen's Scarlet, Hallock & Thorpe, 1880. Crimson, seems

mod. Beng.
Queen Victoria,
Fontaine, 1850. (Sent out by W. Paul.)
Raised from La Reine. Blush with pink centre, large, very full, globular; does not open well.

T. Sievers, 1891. A sport from Papa

Gontier, resembling that variety, with the exception that the color is lighter, being pink, and with the petals somewhat striped or blotched.

931. R. Dudley Baxter. W. Paul, 1879. Maroon, large size.

932. Red Dragon, free. W. Paul, 1878. Crimson, large, rather loose flowers; not valuable.

934. * Red Gauntlet, vig. W. Paul & Son, 1881. Bright scarletcrimson, shaded with deep rose; very large and full.

935. * Red Pet, mod. A miniature rose with dark crimson flowers produced continuously. Rover, vig. W. Paul, 1863. Red, tinged with crim-

> son. See Safrano à fleur Rouge.

937. Reine Blanche, mod. Robert, 1858. White, a shy blooming sort.

Blush, well formed.

939. Reine Blanche, mod. Crozy, 1869. Raised from Victor Verdier. Flesh-white, shaded with rose.

040. Reine de Portugal, Guillot fils, 1867. Coppery-yellow, blending with rose, large, very full; an emi-nently distinct sort, but does not open well.

041. Reine des Massifs, Levet, 1874. Salmon-yellow, medium size.

942. Reine des Violettes, Mille-Mallet, 1860. Raised from Pius the Ninth. Violet-red, a muddy color. The same as La Reine,

though supposed by some to be larger and fuller.

DESCRIPTION.

T. Pays Bas, free.

vig. Cl. T.

946. Reine Marie Hen-Levet, 1878. From Mme. Berard X Conriette, vig. Cl.T.

Serbie, vig. T.

Würtemburg, vig. large; semi-double.

Camm, mod. H.R.

free. H.R.

mod. H.R.

953. Richard Wallace, Lévêque, 1871. Red, very large; not of

free or vig. H.R.

956. * Rosalie, mod. T. Ellwanger & Barry, 1884. Raised from

944. Reine Emma des Nabonnand, 1879. Yellow, shaded with reddish-salmon.

945. Reine Maria Pia, Schwartz, 1880. Raised from Gloire de Dijon. Deep rose, the centre reddish-

crimson.

eral Jacqueminot. Cherry-red, a pure shade, large, double, somewhat fra-grant; a beautiful, but rather unproductive sort.

947. * Reine Nathalie de Soupert & Notting, 1885. Flesh color, shaded lightly with yellow, large and

full, of good form, very fragrant. 948. * Reine Olga de Nabonnand, 1881. Brilliant red; very

949. Rêve d'Or, free. N. Ducher, 1869. Buff-yellow, medium size, full.

950. Rev. J. B. M. Turner, 1875 Belongs to the Jules Margottin type. Carmine-rose, a fine en-during shade, large or medium size, semi-globular form; one of the most fragrant and free blooming. A superb rose.

951. Richard Laxton, Laxton, 1878. (Sent out by Turner.) Reddish-crimson, large, full; somewhat resembles Marechal Vail-

lant.

952. Richard Smith, E. Verdier, 1861. Belongs to the Gen. Jacqueminot type. Crimson, tinged with purple, not valuable.

free. H.R. first quality, 954. Rivers, free. H.R. Laffay, 1839. Rose color, large, flat form,

not valuable.

955. Robert Marnock, G. Paul, 1878. Belongs to the Duke of Edinburgh type. Brownish-crimson,

double, not free in autumn.

seed of Marie Van Houtte. Of slender yet healthy growth; flower small, a little larger than Paquerette, and of a deep pink color, about the shade of Madame Lambard. Pretty in bud, the flowers being of good substance, and remaining perfect for a long time; fragrant.

	VARIETY	, HABIT
F	GROWTH,	AND CLASS.

DESCRIPTION.

free. H.R.

959. Rosieriste free, H.R.

964. Rubens, free. T.

o65. Rugosa Alba, vig.

o66. Rugosa Rubra, vig.

mod. H.R.

968. Safrano, free. T.

957. Rose du Roi, mod. Lélieur, 1812. Bright crimson, large, (Crimson Perpet-double, very fragrant; occasionally

ual.) Dam. blooms in autumn. 958. Rosieriste Harms, E. Verdier, 1879. Velvety-red, shaded with crimson, slightly resembling Mme. Victor Verdier.

Jacobs, Madame Ducher, 1880. Bright red.

960. Rosy Morn, dwf. W. Paul, 1878. Belongs to the Victor Verdier type. Salmon-pink, a deeper shade than Eugenie Verdier; peculiar wood and foliage more like Captain Christy than any other variety. A good rose, but with too many imperfect blooms.

961. Royal Standard, Turner, 1874. Satiny-rose, tinged with mod. H.R. lilac, a large, well-formed, globular flower; but does not open well.

962. Royal Tea, mod. T. White, faintly tinged with yellow, long, beautiful buds, delicate habit.

963. Rubens, mod. H.R. Laffay, 1852. Bright red, a fine color, flowers loose.

> Moreau-Robert, 1859. Rosy-flesh deeper at centre, large, full, well formed, fine in the bud. An excellent variety.

> A species from Japan, introduced some years ago. White, large size, five petals, fragrant. A beautiful single rose.
> Also from Japan. Deep rose, tinged

with violet, single, fragrant. The flowers are succeeded by very bright colored heps of large size, which in the autumn are exceedingly attractive. The leaflets are nine in number, of dark color, very tough and durable. These two kinds are splendid shrubs for borders.

967. S. Reynolds Hole, G. Paul, 1872. Maroon, flushed with scarlet-crimson, medium size, full, well formed; shy in the autumn and subject to mildew. A rose of great beauty but not at all adapted to general cultivation.

Beauregard, 1839. Saffron and apricotyellow, large, semi-double, exceedingly beautiful in the bud, very free. The seed organs are better developed than in almost any other kind.

	VARIETY	, HA	BIT
OF	GROWTH,	AND	CLASS.

DESCRIPTION.

- One will, this obtain			
969. Safrano à fleur Rouge, mod. (Red Safrano.) T.	Oger, 1868. Belongs to the Safram. type. Saffron-yellow, shaded with coppery-red, semi-double; a peculial scent, not pleasing.		
970. Saint George, mod. H.R.	W. Paul, 1874. Crimson, shaded with purple.		
	W. Paul & Son, 1891. "Large and full bright scarlet-crimson, very vivid in summer; very free flowering."		
972. Salet, free. P.M.	Lacharme, 1854. Light rose, medium size. flat form, fairly good buds, very free. The best in the class, after Soupert en Nottine.		
973. Sanguinea, mod. Beng.	Crimson, medium or small size. An in- ferior Agrippina.		
974. * Sappho, vig. T.	W. Paul & Son, 1889. Buds medium, full, globular, fawn color, suffused with rose, the opening flowers shaded with yellow and tawny buff. Distinct and handsome; vigorous and free bloom-		
975. Sénateur Vaisse, mod. H.R.	ing. Gnillot père, 1859. Raised from Generas. Jacqueminot. Red, shaded with carmine-crimson, large, full, well formed, highly scented. A fine rose, but now surpassed by Mons. E. V. Teas.		
976. Setina, free. B.	P. Henderson, 1859. A sport from Her- mosa. Identical with the parent, ex- cept that the habit is a little more vigor-		
-Seven Sisters. Mult.	ous. See Gréville,		
977. Sir Garnet Wolseley, vig. or free. H.R.	Cranston, 1875. Said to be a seedling		
978. Sir Joseph Paxton, free. B.	Laffay, 1852. Deep red, slightly tinged with violet, medium size, well formed, non-autumnal.		
979. *Snowflake, vig. T.	Strauss & Co., 1890. Sent out by Strauss & Co., of Washington, D.C.; a very free flowering white rose; useful in set designs, and as a pot plant.		
980. Socrates, free. T.	Moreau-Robert, 1858. Deep rose tinged with fawn, large or medium size, double or full. Quite a good Tea.		

DESCRIPTION.

081. Sœur des mod. H.R.

982. Solfaterre, vig. Boyeau, 1843. Raised from Lamarque. (Augusta.) N.

083. Sombreuil, vig.

dwf. P.M.

Vardon, mod. T.

988. * Souvenir de Clair- Eugène vaux, vig. T.

Sand, free. T.

Clay, free. S.

brielle Drevet, vig.

maison, mod. B.

Anges, Oger, 1863. A sport from Duchesse d'Or-léans. Flesh, shaded with lilac; not valuable.

> Sulphur-yellow, large, double or full, slightly fragrant. An excellent climbing rose, and valuable as a stock on

which to bud Teas.

T. Moreau-Robert, 1851. Evidently of Bourbon parentage on one side. Creamywhite, often tinted with pink, large or very large, full, well formed; the hardiest and most vigorous of the white Teas, and free from mildew. A valuable sort for culture in the open air.

984. Soupert et Notting, Pernet, 1874. Rose color, very large, very full, globular form, highly scented, not very mossy, a true ever-blooming rose, five leaflets only. The flowers are some-times malformed, but they are infinitely 985. Souvenir d'Adolphe Thiers, mod. H.K. tess of Oxford. Red, tinged with vermilion, very large.

986. Souvenir d'Auguste E. Verdier, 1877. Belongs to the *Prince* Rivière, free. *H.R.* Camille type. Velvety-crimson.

987. Souvenir d'Elise Marest, 1855. Flesh color, shaded with rosy-salmon, large, full; highly es-teemed in England, but we have never admired it; refinement is lacking in the flower.

Verdier, 1891. Large, well formed; buds large, long; pinkish-rose;

989. Souvenir de Georges Madame Ducher, 1876. Salmon and rose, reverse of petals tinged with lilac, badly formed.

990. Souvenir de Henry Boll, 1854. A hybrid Scotch. Rose color, small or medium size, gives some blooms in the autumn.

991. * Souvenir de Ga-Guillot fils, 1885. Salmon-white, centre coppery-rose, large and full, very sweet.

992. Souvenir de la Mal-Béluze, 1843. Supposed to be a seedling from Madame Desprez. Flesh shaded with fawn, large, very full, flat form, rich foliage. A splendid rose.

DESCRIPTION.

993. Souvenir de Reine d'Angleterre, vig. or free. H.R. autumn.

994. Souvenir de la Reine Cochet, 1855. Carmine-red, medium size,

free. H.R.

H.R.

Gower, free. H.R.

Van Houtte, free.

Robert, free or vig.

dame Sablayrolles,

vig. 1000. Souvenir de Marie Madame Ducher, 1877. Salmon rose; of

Boll, mod. or free. H.R.

Neyron, mod. T.

Pernet, vig., T.

Hugo, vig. T. pery; large, full, and distinct. roo8. Souvenir de Victor E. Verdier, 1878. Red, shaded with vio-

Verdier, free or mod. H.R.

la Cochet, 1855. Raised from La Reine. Bright rose, very large, double; shy in

des Belges, mod. or good color, rather tender.

995. Souvenir de Laffay. E. Verdier, 1878. Violet-crimson.

996. Souvenir de Leveson Guillot père, 1852. Deep-rose, very large, double or full, fine flowers; quite tender, and subject to mildew.

997. Souvenir de Louis E. Verdier, 1876. Bright crimson, sometimes tinged with violet, well formed, quite a good rose.

998. Souvenir de Mme. Moreau-Robert, 1876. Raised from Jules Margottin, Salmon-pink,

999. * Souvenir de Ma-Bonnaire, 1890. Large, finely formed; creamy-white, tinged with silvery-rose; fragrant.

Détrey, free. T. inferior quality, not worth growing.

1001. Souvenir de Mons. Boyeau, 1866. Cherry-red, large, very full.

1002. Souvenir de Mons. Madame Ducher, 1881. Carmine-rose,

Droche. H.R. double.

1003. Souvenir de Paul Levet, 1871. Said to be a seedling from the Noisette Ophirie. Pale salmonyellow, medium or small size; rather a good rose, but too delicate to be generally useful.

1004. Souvenir de Pierre A. Levet, 1876. Red, large, globular Dupuy, vig. H. flowers, well formed, fragrant.

1005. Souvenir de Mme. Pernet, 1875. Tender rose, the base of petals tinged with yellow, large loose flowers, sparsely produced. A distinct but not valuable sort.

1006. Sonvenir de Spa, Gautreau, 1873. Raised from Mme. Victor Verdier. Bright red, shaded with crimson, well formed.

1007. *Souvenir de Victor Bonnaire, 1886. China rose, centre cop-

let-crimson, a well-formed, good rose.

DESCRIPTION.

1000. Souvenir de Wm. Wood, mod. H.R.

free. T.

de Cavour, mod. H. R.

Jamain, free. H.R.

sieriste Gonod, vig. H.R.

ton, vig. H.T.

go, vig. H.R.

1017. Stanwell Perpet-Lee. ual, mod. S. cat

mod. or dwf. H.R.

1019. Stéphanie - et-Rodolphe, vig. Cl. T. 1020. Sulphureux, mod. Ducher, 1869. Sulphur-yellow, medium T

1022. Superba, vig. P.

E. Verdier, 1864. Belongs to the Prince Camille type. A fine, very dark crimson, not equalling Prince Camille.

1010. Souvenir d'un Ami, Bélot, 1846. Rose, tinged with salmon, very large, full, highly perfumed; an old favorite which yet retains its high rank.
1011. Souvenir du Comte Margottin, 1861. Red, shaded with crim-

son.

1012. Souvenir du Dr. Lacharme, 1865. Raised from Charles Lefebure. Plum color, shaded with deep crimson.

1013. Souvenir du Prési-T. Grangé, 1880. (Sent out by Vigneron.) dent Porcher, mod. Raised from Victor Verdier. Deep

1014. * Souvenir du Ro- Jean Ducher, 1890. Very large, full, and well formed; cerise, veined with bright rose; fragrant. Forces well.

1015. *Souvenir de Woot-Cook, 1888. A red hybrid Tea from seed of Bon Silène, fertilized with Louis Van Houtte; plant vigorous with fine foliage; free blooming; buds of good size on strong shoots; of a rich red color and extremely fragrant. If the buds were longer this would be a very valuable variety for forcing.

1016. Standard of Maren-Guillot père, 1851. Rosy-crimson, double fragrant.

Blush, medium size, double, delicately scented, foliage very small, nine to eleven leaflets; dark reddish-brown wood, numerous small spines. A hybrid which blooms in the autumn.

1018. Star of Waltham, W. Paul, 1875. Carmine-crimson, medium size, semi-globular, full, fragrant; very large foliage, smooth green wood, with occasional red thorns. A good rose but not reliable.

Levet, 1880. Raised from Gloire de Dijon. Orange-yellow.

size. 1021. Sultan of Zanzibar, G. Paul, 1875. Crimson-maroon, in the mod. H.R. style of S. Reynolds Hole; very unhealthy habit.

Feast, 1843. Pink, becoming blush, small, full, pretty.

DESCRIPTION.

vig. T.

stone, vig. H.R.

free. H.R.

free. H.R.

ens, vig. H.R.

Beauté, free. H.R.

dwf. or mod. H.R.

1023. *Suzanne Blanchet, Nabonnand, 1886. Rose tinted with flesh color; large and of fine form; very fragrant.

1024. Sydonie, vig. H.R. Dorisy, 1846. Rose color, medium size, very full, quartered form, very free blooming, very hardy; five to seven leaflets, red thorns. Its poor shape destroys its usefulness,

1025. * T. W. Girdle- A. Dickson & Sons, 1800. Very large, perfectly symmetrical in form; brilliant carmine, base of petals shaded with lake; very fragrant.

1026, Tatiana Oneguine, Lévêque, 1881, Raised from Elizabeth Vigneron. Carmine-red.

1027. The Shah, free, G. Paul, 1874. Raised from Duke of H.R. Edinburgh. Red, shaded with bright crimson, rather small, full; a shy bloomer, and subject to mildew.

1028. Théodore Bullier, E. Verdier, 1879. Carmine-red, tinged with violet-crimson.

1029. There'se Genevay. Levet, 1875. Rose, tinged with fawn.

1030. Thomas Methven, E. Verdier, 1869. Red, tinged with velvety-crimson, good size, well formed; a fine rose.

1031. Thomas Mills, vig. or free. H.R.
1032. Thyra Hammerich, Ledéchaux, 1868. Raised from Duchess mod. or free. H.R. of Sutherstand. Rosy-flesh, large, well formed; distinct and good.

1033. Triomphe d'Ami-Mille-Mallet, 1861. A sport from General Jacqueminot. Crimson, sometimes marbled and striped with carminepurple, but generally like the parent; not valuable.

1034. Triomphe d'An-Morean-Robert, 1863. Rich crimson, suf-

gers, mod. H.R. fused with purple.

1035. Triomphe de Oger, 1853. Reddish-crimson, double, somewhat resembles General Jacqueminot, but much inferior.

1036. Triomphe de Caen, Cger, 1862. Crimson, tinged with purple, a non-permanent shade, not desirable.

1037. Triompho de Margottin, 1875. Carmine - red, very France, dwf. H.R. large, very full, flat, fragrant; a fine sort, but not reliable, and of such poor growth as to destroy its value.

DESCRIPTION.

sens, free. Fr.

lan, mod. T.

net père, vig. T.

louse. H.R.

1044. Triomphe des Fontaine, 1857. Beaux Arts, free or vig. H.R.

omanes, vig. H.R.

1047. Triumphant, vig. Pierce, 1850. Rosy-pink, medium size,

1048. Ulrich Brünner, Levet, 1881. Raised from Paul Neyron. vig. H.R.-Unique. M.

1049. Unique, vig. (White Provence.) Prov.

ferino, mod. H.R.

nix, mod. T. medium size.

1052. * Vick's Caprice, James Vick, 1889. A sport from Arch-

vig. H.R.

1038. Triomphe de Jaus-Crimson, large loose flowers, wood armed

with short dark spines, 1039. Triomphe de l'Ex-position, free. H.R. Margottin, 1855. Reddish-crimson, large, rather coarse flowers, fragrant, numerous red thorns, hardy; occasionally comes very fine, but generally the

quality is inferior.

1040. Triomphe de Mi-Madame Ducher, 1876. White, suffused with pale yellow, without fragrance; a fine rose, similar, but inferior, to Marie Guillot.

1041. * Triomphe de Per-Pernet père, 1891. Bright red; buds long.

1042. Triomphe de Ren-nes, free. N. Lansezeur, 1857. From Lanarque, Canary-yellow, the centre tinged with salmon, large or very large, full, good. 1043. Triomphe de Tou-Brassac, 1874. Red, shaded with violetcrimson.

Raised, from General Jacqueminot. An inferior likeness of

the parent.

1045. Triomphe des Ros-Gonod, 1873. Belongs to the General Jacqueminot type, Crimson, tinged with purple, fragrant, and of fair quality; a good seed-bearer.

embourg, free. T. Hardy, 1836. (Sent out by Madame Pean.) Buff-rose, large, good in the bud, of healthy habit; a desirable

sort.

double or full, distinct; seven leaflets are common.

Cherry-red.

See White Bath.

Grimwood, 1778. White, a good rose, similar but inferior to Madame Hardy.

1050. Vainqueur de Sol-Damaizin, 1859. Belongs to the Giant of Battles type. Red, shaded with purplish-crimson.

1051. Vallée de Chamou-Ducher, 1873. Coppery-yellow and rose.

duchesse d'Autriche. Large, pink, striped and dashed with white and carmine; vigorous and free blooming.

DESCRIPTION.

1053. Vicomte vig. H.R.

1054. Vicomte free, H,R.

H.R.

mod. H.R.

2059. Villaret de Joy-cuse, free. H.R. 1060. Ville de St. Denis, Thouars, 1853. From La Reine. Carfree. H.R.

1061. Violette free or vig. H.R.

2063. Viridiflora, (Viridiscens.) Beng.

1065. Viscountess mouth, dwf. H.T.

Folkestone, vig. H.

Maison, Fontaine, 1868. Cherry-red, double, fades quickly, straggling habit. Vigier, E. Verdier, 1861. Maroon-tinged with violet, a well-formed, globular flower.

1055. Vicomtesse de Pradel, 1844. Coppery-yellow, rather lose form, very delicate habit.
1056. Victor Pulliat, mod.
T. Pale yellow, long buds, quite a good Tea.

7. quite a good Tea.
1057. Victor Trouillard. Trouillard, 1856. (Sent out by Standish

& Noble.) Crimson and purple.

1058. Victor Verdier, Lacharme, 1852. Bright rose, with carmine centre, a very fresh shade, but not permanent, semi-globular form, of good size, not fragrant; very free, the wood is all but smooth, the foliage lus-This variety is doubtless of Bourbon origin; it is a beautiful rose, but with its entire progeny is more tender than any other types in the class.

mine-rose. Bouyer, Lacharme, 1881. From Jules Margottin X Sombreul. White, tinged with pink. 1062. Virgil, free. H.R. Guillot père, 1870. (Sent out by W. Paul.)

Pink, tinged with lavender, not valuafree. Green flowers, of no beauty whatsoever, only sought for as a curiosity.

1064. Virginale, mod. H. Lacharme, 1858. White, with flesh centre, medium size, double or full, well formed; a good rose, but of very delicate habit.

Fal-Bennett, 1879. From President × Sou-t.T. pert et Notting. Mottled rose, the exterior of petals with a silvery lustre, very large, very full, globular, having the intense fragrance of Soupert et Notting, and like that variety inclined to come malformed. The wood is very thorny, the shoots slender.

1066. * Viscountess Bennett, 1887. Creamy-pink; large, full, sweet.

T. 1067. Vulcain, mod. H. E. Verdier, 1862. Rich crimson, double, well formed; a rose of splendid color.

DESCRIPTION.

ders, mod. H.R.

febure.
1070. * Waban, mod. T. E. M. Wood & Co., 1891. A sport from

1072. White Banksia, Brought to England from China in 1807. vig. B'k.

1074. White Bath, mod. Salter. or free. (Unique.) M.

Provence. See Unique. -White Prov.

vig. T.

nett, vig. H.T.

free. H.R.

1068. W. A. Richardson, Madame Ducher, 1878. Orange-yellow, vig. N. medium size, of fair quality.

1069. W. Wilson Saun-G. Paul, 1874. Belongs to the Charles Lefebvre type. May be briefly described as an inferior Charles Le-

> Catharine Mermet, resembling it in every respect except in color, which is a rich, bright, clear pink. With some growers this variety has proved a success, while with others it has not done well. It often grows one-sided.

1071. Washington, vig. Stewart (of Philadelphia). White, medium size, loose flowers, poor.

> Pure white, small full flower, violetscented.

1073. White Baroness, G. Paul, 1882. A sport from Baroness mod. H.R. Rothschild. Unlike Mabel Morrison, this is quite as full a rose as the parent, and it is pure white; in other respects, as vigor of growth, etc., it is identical with Baroness Rothschild. We saw this in flower at Cheshunt during the summer of 1880, and were greatly impressed with its merit.

A sport from the Common. White, sometimes tinged with flesh, attractive in bud and open flower; generally five leaflets, of straggling habit. Much the best white moss.

1075. *White Bon Silène, F. Morat, 1883. A sport from the wellknown Bon Silène. Of a pearly white-

ness, vigorous and free flowering.
W. Paul & Son, 1889. Flowers large,
beautiful semi-cupped form; creamywhite.

1077. * William F. Ben-Bennett, 1885. Beautiful glowing crimson, similar to Gen. Jacqueminot, with a bud similar to Niphetos; very fragrant; a very free bloomer, but only a moderate grower.

1078. William Griffith, Portemer, 1850. Pink, much resembling Countess C. de Chabrillant, but the

DESCRIPTION.

mod. H.R.

vig. H.R.

1083. Woodland Mar- J. Pentland, 1859. guerite, vig. N.

vig. B'k.

-Yellow Tea. T1086. Yolande d'Aragon, free. H.R.

flowers are somewhat smaller, the wood smoother, and in habit it is more vigorous, but also much more liable to injury from the cold.

1079. William Jesse, free. Laffay, 1840. Red, suffused with violet, in the way of Pius the Ninth. An undesirable sort.

1080, William Koelle, Pernet, 1878. Raised from Alfred Colomb. The flowers are nearly or quite the same shade as those of the parent, the habit is partially that of *Charles* Lefebure.

1081. William Lobb, free. Laffay, 1855. Violet-red, not an attractive sort.

1082. William Warden, Mitchell & Son, 1878. A sport from Madame Clemence Joigneaux. Pink flowers, the habit, etc., is the same as that of the parent.

White, sometimes with flesh, medium size; of fair quality. 1084. Xavier Olibo, mod. Lacharme, 1864. Said to be from Gen. or dwf. H.R. Jacqueminot. Very deep, rich crimson, large flowers, moderately full; a superb rose.

1085. Yellow Banksia, Brought to England from China in 1827. Like White Banksia, except the color, which is clear yellow.

See Flavescens.

Vibert, 1843. Lilac-rose, flat form, straggling habit; worthless.

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